

# ***Bush Stadium Revitalization***

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## ***Abstract***

This study has addressed the revitalization of Bush Stadium into urban parkland in Indianapolis, Indiana. To successfully achieve this proposal, Bush Stadium was redeveloped into urban parkland that promoted health, social, environmental, and economic benefits to the surrounding community. Proper park design, circulation movements, and building renovation were key segments in this study. This research served as a catalyst for brownfield redevelopment throughout Indianapolis.

The first phase of implementing a design strategy examined and evaluated park design and building revitalization techniques. Case studies, GIS, interviews, surveys, and various hard data collection made up the primary and secondary data were needed to understand park design and building revitalization strategies.

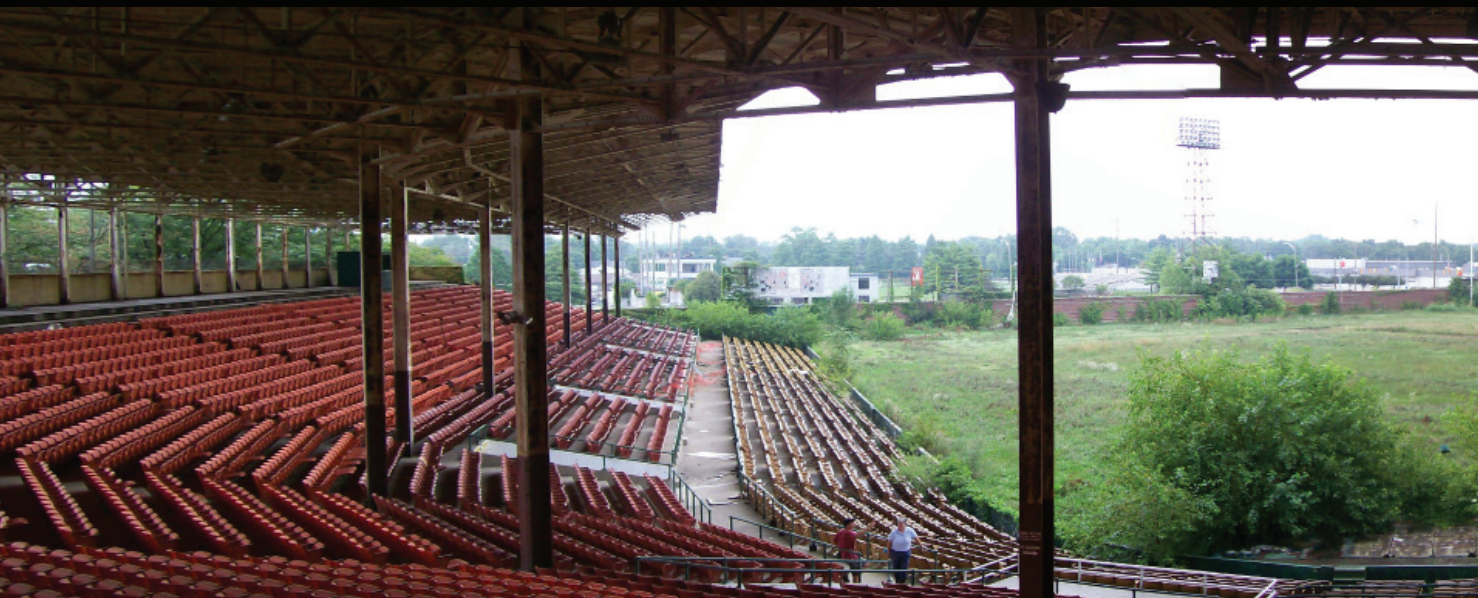
Properly applying the gathered data from phase one to Bush Stadium makes up the second phase. The results of this application include that Bush Stadium now has the components of other successful projects and studies. These successful components include active and passive recreational use areas, efficient circulation to and within the site, safety of all users, and a unique historical nostalgia that only a structure like Bush Stadium can provide.

The historical nostalgia that Bush Stadium provides is very unique. It is just one of four remaining ball parks where a Negro League baseball game was played. The baseball stadium is located in northwest Indianapolis, Indiana just

a few minutes walk from downtown. Bush Stadium was built in 1931 and sustained constant baseball use till 1995 and is on the National Register of Historic Places. Revitalizing Bush Stadium is an important part to preserving the historical baseball significance that Indianapolis has.

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***Bush Stadium Historical Map  
Courtesy Indianapolis Star  
Indianapolis, IN  
Figure 1***

## ***Introduction***

Imagine something in which only four exist in the world. It could be precious. It could be rare. It could be extremely important to its people. Bush Stadium in Indianapolis, Indiana is one of just four remaining baseball stadiums in which a Negro League game was played. Sadly enough, only one of these four stadiums is still in use. The other three (which includes Bush Stadium) are abandoned and face demolition. “If you lose a historic structure, you lose a piece of who you are. And this city would lose a big piece of what it is if this place were to disappear,” says Brian LoPinto, cofounder of Friends of Hinchliffe Stadium (1 of the 4 remaining Negro league stadiums). Although, LoPinto is describing Hinchliffe Stadium, his words directly apply to Bush Stadium.

With this project, I provided the city of Indianapolis with useable and historic urban parkland. The benefits of this project include improving connectivity to existing residents, proper revitalization of Bush Stadium, infill with appropriate commercial development, and the creation of available urban parkland for many Indianapolis residents. These goals will bring health, social, environmental and economic prosperity to the area.

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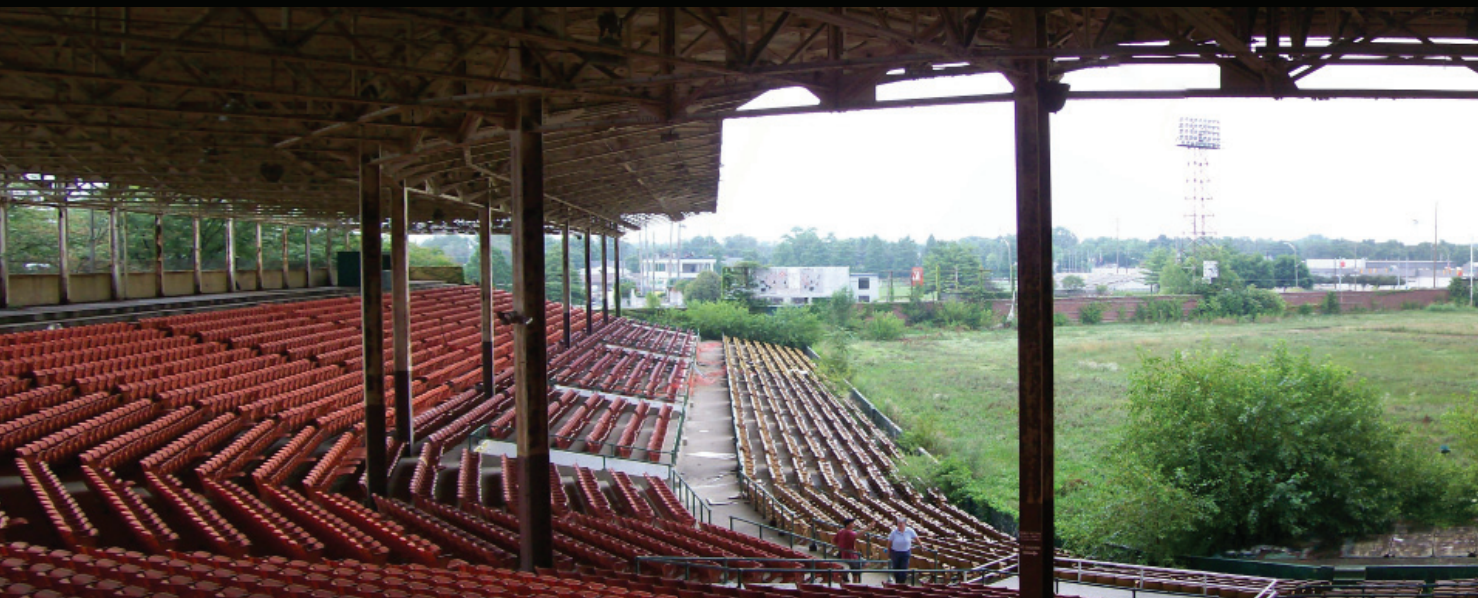
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***Bush Stadium Historical Map  
Courtesy Indianapolis Star  
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## ***Problem Statement***

The project will rehabilitate Bush Stadium as urban parkland and successfully link this urban parkland design, infill, and historic preservation with other parks to provide connections to the surrounding community.

### **Breakdown of Problem Statement**

1. Investigate various types of urban green space and what activities occur in them and how these activities work with the community.
2. Determine how an urban park can serve as a point of connection for pedestrian and bike movement and become a place that people live and interact with.
3. Examine a select few adaptive reuse projects with an existing vacant structure and how the vacant structure and the surrounding site were reused to create urban park space.
4. Determine how urban parkland benefits the community. This project can serve as a draw for community residents, IUPUI, and the city of Indianapolis.
5. Provide residential infill and supportive commercial spaces that let the site become a destination point.
6. Preserve the historical nostalgia of Bush Stadium will providing functional and safe places for people to live.



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## ***Information on Bush Stadium & Related Findings***

Just north-west of downtown Indianapolis, Indiana, Bush Stadium was constructed in 1931. Bush Stadium was the home of the Indianapolis Indians till 1995 and home of the Negro league team Indianapolis ABC's in the 1930s and 1940s. In fact Game 5 of the Negro League World Series was held at Bush Stadium in 1945. It is only one of four remaining ballparks in which a Negro league game was played. The first game was actually played in 1931 in the stadium and included such guests as Keneshaw Mountain Landis, the first commissioner of major league baseball and Thomas Hickey, president of the American Baseball Association. A sports-writer at the game described it as "the most perfect in equipment and having a playing field surpassed in area by only a few." The designers of Bush Stadium were Pierre and Wright (Edward Dienhart Joseph Pierre and George Caleb Wright) and constructed by Osborn Engineering Company (who also constructed Comiskey Park, Tiger Stadium, Old Yankee Stadium, and Fenway Park). The work was commissioned by Norman Perry, whose family operated Indianapolis Power and Light Company. Thus, the first name for Bush Stadium was actually Perry Stadium, after Norman Perry. In 1995, Bush Stadium was placed on the National Register of Historic Places. (National Register Nomination; courtesy Paul Diebold, IDNR)

Today, the site which Bush Stadium sits on is owned by the Indianapolis City Parks Department. Excluding the existing parking lot, the stadium and

immediate surrounding grounds is 16 acres. This proposal will be geared for the city of Indianapolis, but in particular the Indianapolis Parks Department.

## **Urban Parkland**

Use for urban parks began when Central Park was planned in the 1840s. According to Great City Parks (Tate, 144) the early planning for a large park in New York City was called for because of recreational needs. Olmsted created the park for all types of people and activities, both passive and active. The most interesting point Olmsted describes as an activity is people watching. He says “it did great good to come together thus ‘in pure air and under the light of heaven.’” Having people in the park, even if they might just be sitting down, would attract a consistent variety of users. (Beveridge 47) Creating passive and active activities would promote people watching; thus, a more successful park.

Active use areas play important roles in park design. For example, several New York City parks are most commonly thought of for passive use, but active recreational activities like ping pong (at Bryant Park) and team volleyball (at Battery Park) are available in what otherwise is arguably the most urban area in the world. Anatomy of a Park (Molnar, 19) describes how active recreation must be planned. Correlating activities are always placed together with movement through the space being efficient. Open lawn space allows for the variety of uses in one area and if large enough, various activities can occur simultaneously. Great City Parks (Tate, 154) shows the success of the Great

Lawn and the Sheep Meadow in Central Park. These two spaces serve as whatever the imagination of the user wants it to be. Active recreation also provides health benefits to the user. Having the available space to safely and pleasurably enjoy active recreation is important. However, available space may be used for passive recreation as well.

Bringing Buildings Back (Mallach, 283) discusses that uses like “community gardens, private yards, common areas, and managed fields” are great passive recreation opportunities to bring the community to one place. Passive activities “promote an interaction of all types of people (Tate, 155).” Thus, the design should be designed to create social places where this interaction can take place (Molnar, 20). Passive recreation is distinctive because these spaces do not have physical limitations that active recreation often does. Community gardens are often ways to create a great variety of users. According to Old Cities/Green Cities (Bonham, 73), community gardening programs have grown to over 1200 (in 2001). These programs have worked in low to medium income neighborhoods to design and build community gardens. The appeals of community gardens are the hands-on work, the social gathering that takes place and the feeling of self accomplishment for parcel owners. In turn, farmers’ market can result from the community garden, further bringing active use to the area. Other passive recreation opportunities occur in less formal areas such as common areas, small parks, and plazas (Bonham, 16). These simple spaces allow for social gathering, which is the most important passive activity that a park can offer. Knowing what the land offers can determine the role of activity that takes place there. (Molnar, 60) This is why analyzing the

existing land is very important. Anatomy of a Park (Molnar, 19) states that multiple use concepts, broaden active lifestyle.

Analyzing available land will help determine the potential use of that land (Molnar, 60). An article in *Green Places*, (Gavin Jones) a small United Kingdom town had called out for road bike and mountain bike riding opportunities. However, they wanted their park to be local and unique. The result was a designed bike park that used local, vacant coal mines. The use fit the need of the community as well as providing a self gratification to residents that their coal mines were unique recreational opportunities.

Establishing recreational use in newly developed urban parkland was that the recreational activities should financially benefit the surrounding neighborhood in some way. If a newly developed green space can be shown to economically help its context, the park will likely succeed. Other overlying elements were summarized by Land, Development, and Design (Syms, 311), which concluded that successful activities possesses “character, continuity, open space, ease of movement, an image, adaptability, and diversity.”

## **Roles of Circulation in Parks**

“If people can get where they want to go readily and without interfering with other activities, a feeling of peace permeates the site.”(Molnar, 74) Circulation routes through urban space are very important because poor circulation can

cause the space to be unused. Anatomy of a Park (Molnar 74-77) provides various circulation considerations for urban parks. Their recommendations suggest that obstacles and confusion must be eliminated so circulation is free and fluid. Use areas and landform can be forms of obstacles in a park. When an activity is not occurring, movement may seem easy, which is why identifying this obstacle may be difficult.

The foundation for circulation of a site should be as stated in Land, Development, and Design (Syms, 76). To begin, movement patterns should be analyzed from before the structure or site was there. Using historical maps can provide basic automobile movement from when a structure may not have been there yet. Functional bike and pedestrian movements can be based off this. Secondly, public transportation and existing greenbelt movement can dictate how many people will be using the space. The availability of these amenities will bring life and people to the site simply because the site is a connection point between modes of transportation. Syms lastly states that efficient movement needs to occur around the site, but interestingly enough within the boundary of the site as well. Movement completely within and outside the site should both work if the other is gone, but should connect whenever possible. This concept is the most important for efficient movement of all types for the proposed site. Bringing Buildings Back (Mallach 284) has a more regional view of the site. The area needs to connect to tangible and non-tangible spaces meaning that the immediate context should be connected, but also other sites or regions that do not directly connect with the site. If people are able to easily get to an urban park from extended areas,

then more people will have access to the site. More specifically, “Linked neighborhoods and open space provide activity nodes.”

Movement of people to an urban park is either site specific or more regional. Great City Parks (Tate, 147-148) covers many more of the site specific goals for circulation. First, urban parks will make walks seem shorter. As Tate notes, Olmstead and other designers strategically placed Central Park in the center of Manhattan. Consequently, people will actually walk farther distances when traveling through Central Park, or parks in general. This is because movement through peaceful and aesthetic spaces is anticipated. A park should also mix the use between formal and informal spaces. Moving people in all directions is the effect of using different types of circulation. Great City Parks (Tate, 147) also explains that “grade change” should be embraced as a potential to create interesting places. Grade change may allow for bridges to connect different user groups to different places. If designed effectively, bridges will not be bridges, but seem as effortless circulation routes (Bonham, 34). User groups must also have their own defined use. For example, bikes and pedestrians need their own defined use area so that their needs are not comprised by shared space. Case studies presented by Great City Parks (Tate) cover circulation movements of many parks throughout the world.

Adaptive Reuse (Austin, 99-100) determines that people need to enjoy movement to the site. If circulation to the site is enjoyable, then more people use/visit the area. Movement to an urban park may be by vehicular traffic, thus vehicular circulation use must be addressed. Most sources state that



vehicular traffic should be avoided for movement including Preserving Cultural Landscapes in America (Alanen, 39) stating that automobiles should be considered but almost excluded. Alanen briefly states that some sites are better left without parking availability and that a brief walk from just off site is just as effective, especially when preserving the landscape. *Anatomy of a Park* (Molnar, 123) states a few different circulations guidelines. First off, Molnar writes that bike routes should penetrate a site but not impede use areas. Also, if the use requires distant travel or any reason for parking, it needs to be placed on the site. "Penetrating the site" is adequate for most parks. Ideally, one could make it to the urban park without using automobile transportation.

Spatial experience is a unique discussion by Molnar that covers the different uses in a park to determine why and how people move through the space. For instance, a large open field may have few if any circulation barriers when not in use, but during high use periods, proper circulation must be made available to pass around or through the area. Plant materials can be good ways to create distinct use areas in a park which in turn can be good places to locate circulation paths and trails.

## **Adaptive Reuse Alternatives**

Building reuse is a very important piece in reducing urban sprawl and likewise creating more dense communities. Trends show that redesign of abandoned sites or redeveloped existing sites are becoming ever so popular because of

the convenient location of many of these parks (Molnar, 10). There are several case studies and previous examples of how abandoned properties have been redeveloped into urban parkland. Adaptive Reuse (Austin, 17) examines these projects and why they have succeeded.

Austin formulates a checklist to be considered when working with old, vacant structure.

- Decide if action on the designer's part is needed and if it is "define the problem carefully."
- Seek available resources to help with any uniqueness of the urban park design. Use locally responsive design strategies or resources as well. Cost should be weighed with the benefits proposed.
- People are more important than buildings. "Think of people first as you make your plans." Buildings often create a sense of nostalgia that people hang onto. Keep only the important buildings and preserve anything that is deemed worthy for future use (Austin 1988). Historic buildings are of higher importance which usually has "available grants, low interest loans, tax credits, and tax incentives".

Because buildings often are the points at which most revitalization projects begin, balancing infill development with the available green space and parkland is important (Infill Development Strategies, 3-4). Adaptive Reuse (Austin, 108) advises to create open plazas and courtyards near the infill or revitalization project to act as a buffer and entrance to parkland. According to Brining Buildings Back (Mallach 240), using large infill or revitalization projects

as an anchor will stabilize the redevelopment, the context neighborhood, and the designed parkland. Creating resources for those residents who already comprise the area is just as important. If urban parkland is created just for the new infill or housing redevelopment, the surrounding citizens may feel betrayed by the city. This is one reason to develop large spaces as urban parkland, which all can share. Bringing Buildings Back (Mallach, 286) also says the scale of urban green space can greatly vary. Side yards may be a very small and overlooked element of greening a city, but residents are happy with the new available space. Side yards are good ways to use small spaces that otherwise would remain vacant and unused. Residents also embrace the responsibility and maintenance of these side yards so they will remain in good condition.

Other vacant structures have been used as commercial development. According to Adaptive Reuse (Austin, 112) if vacant structures are to be occupied as commercial development then urban green space needs to be allocated for high activity use. Using trees on the street can soften the hardscape of the entire area and also blend into an urban park. Great City Parks (Tate, 5-9) shows how Paley Park, though completely hardscape, provides a peaceful green space to retreat to directly off the sidewalk/street. These small urban pocket parks increase activity and comfort especially if a vacant building is reused in a dense area.

## Benefits of Parkland for the Community

According to *Urban Institute*, by Chris Walker, parks provide economic, social, health and environmental benefits to the community. The article *The Public Value of Urban Parks* also says that 75% of respondents said that they did not use the park, but it still benefited their daily lives. So as Walker shows, urban parks positively affect everyone, not just its active users. In fact, a study of the Garfield Park Conservatory showed that between 1997 and 1998, nearly 75% of the park users were visitors. Thus, park users include those who use and do not use the park, as well as distant visitors. Overall, everyone is affected by parks.

Open space has been shown by *Trust for Public Land*, of San Francisco, California, as an investment tool in several case studies. As Rodgers says, the organizations president, “We often hear that communities cannot afford to ‘grow smart’ by conserving open space. But evidence suggests that open space is not an expense.” The study written by *Trust for Public Land* (Urban Land 2000, pg. 37) shows several findings. To begin, many small businesses are choosing site locations by the available “open space, park, and recreation.” Rodgers also discusses the range of revenue that parks provide. For instance, a study conducted in 1980 says that only 16 percent of residents would pay more to live near a park. The same study conducted in 1990 showed that nearly half of the residents of Denver would pay more to live near a park or greenbelt system. This is a direct economic benefit. Here, green space raised

real estate values (at least in the mind of the people) by offering available space for various daily activities.

As Walker discussed in the *Public Value of Urban Parks*, positive health and social implications are two main benefits that parks provide for residents. *The Health and Social Benefits of Recreation* (California Outdoor Planning Program) agrees that health and social influences are positive impacts of successful parks. It states that health benefits include a reduction of obesity, chronic health problems, boosts the immune system, and increasing life expectancy. The survey backs these claims with studies of several thousand participants who reported a healthier lifestyle resulted from parkland use. In fact, the study showed those users who were more physically active had a significant reduction in cancer rates than those did not. Thus, available parkland can make people healthier through simple use of the space. *The California Outdoor Planning Program* also lists the many social benefits of open park use. Reduction of crime, volunteerism, stewardship promotion, unity, and mixing user groups are all social impacts that park create.

Environmental benefits to parks include various strategies. *Urban Land*, June 2008 gives several ecological reasons for having park space. Parks can manage stormwater runoff and filter contaminants, restore ecosystems for wildlife, and cool the urban environment. One case study that *Sustaining the Land* (Nyren, 48-52) writes is the creation of a green roof on top of the Ford Motor Company to reduce the heat island effect and keep contaminants from running off site with stormwater. The case study shows the environmental

benefits of any properly designed green system, whether it be a park or a green roof.

## **Relating the Literature Review to Bush Stadium Revitalization**

Brownfield reuse or redevelopment reduces and slows urban sprawl while increasing density. Large catalytic projects such as converting Bush Stadium into new useable space will encourage other developers to do the same. To make these projects successful, proper activities and park planning must be accomplished. Use areas of urban green space need to be wanted by the community to ensure a functional use. Thus, connections must be made locally to the surrounding neighborhood and at a more regional scale to those who may need to travel by bike or vehicle to get to the site. Proper circulation to and within the site will add to the chances of a successful park. Additionally, any nostalgic or historic features which give the park, or better yet the community charm and uniqueness should be reused or redeveloped in such a way that people are interested in the features again. Giving the surrounding neighborhood something they can relate to or call their own promotes a responsibility for all to use, share, and maintain the space. The benefits the park provides, whether it is social, economic, health, or environmental must in some way benefit the community too. A site design that improves the life of those around it becomes more than a want, but a necessity.

Additionally, preservation practices should be approached carefully. Only preserve what is absolutely necessary. Bush Stadium should be safe to use because the quality of people's lives should be considered more important than forcing a functionable use into the stadium if it will not support it.





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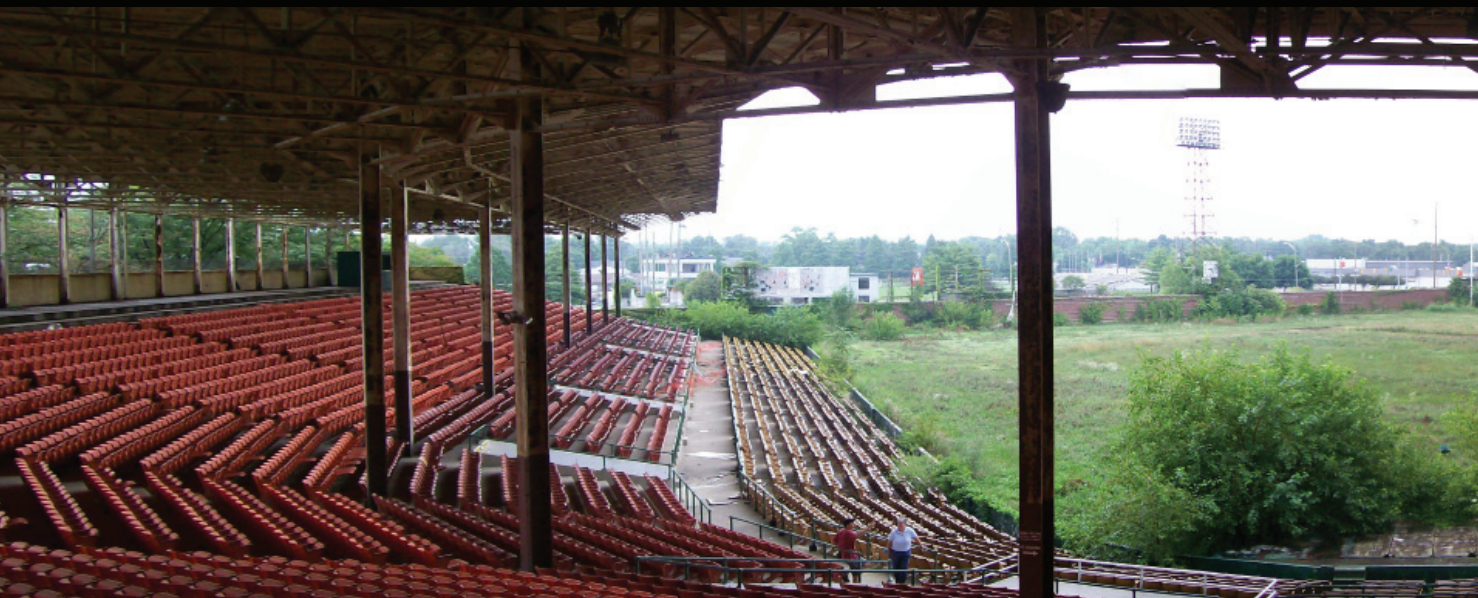
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## ***Significance of the Problem***

This project provides the residents of Indianapolis with unique parkland. By redeveloping a community eye-sore into a green space that all can use will encourage health, social, environmental, and economic improvements to the area. The proposal allowed a space that currently is completely unused to be turned into something that has a functional value. Its connection to surrounding trails and into the neighborhood made access to the site efficient and safe. The value of this research encouraged the continued reuse or redevelopment of brownfields in Indianapolis. Additionally, this project will save Bush Stadium.

## **Hypotheses**

Revitalizing Bush Stadium will encourage brownfield redevelopment and turned a community eye-sore to a community amenity. Using successful design strategies such as park design, infill opportunities, and creating connections while celebrating the history of the existing site, are important components of this proposal. After completion, the proposed design will provide one of the most used and unique urban parklands in Indianapolis.

## **Delimitations**

- This study has not addressed the structural components of the existing structure.
- This study has not addressed more than two blocks beyond the existing site of Bush Stadium in any direction, though the context will be included for the design process.
- This study has not addressed how the proposed redevelopment of Bush Stadium will be funded.
- This study has not addressed soil remediation techniques or strategies.

## **Assumptions**

- Any environmental and health related issues with reusing a vacant structure, such as lead paint or asbestos, has been addressed separately to ensure there are no health related problems for future users.
- Bush Stadium has remained intact throughout the project.
- The sub and super structure was sound and safe.



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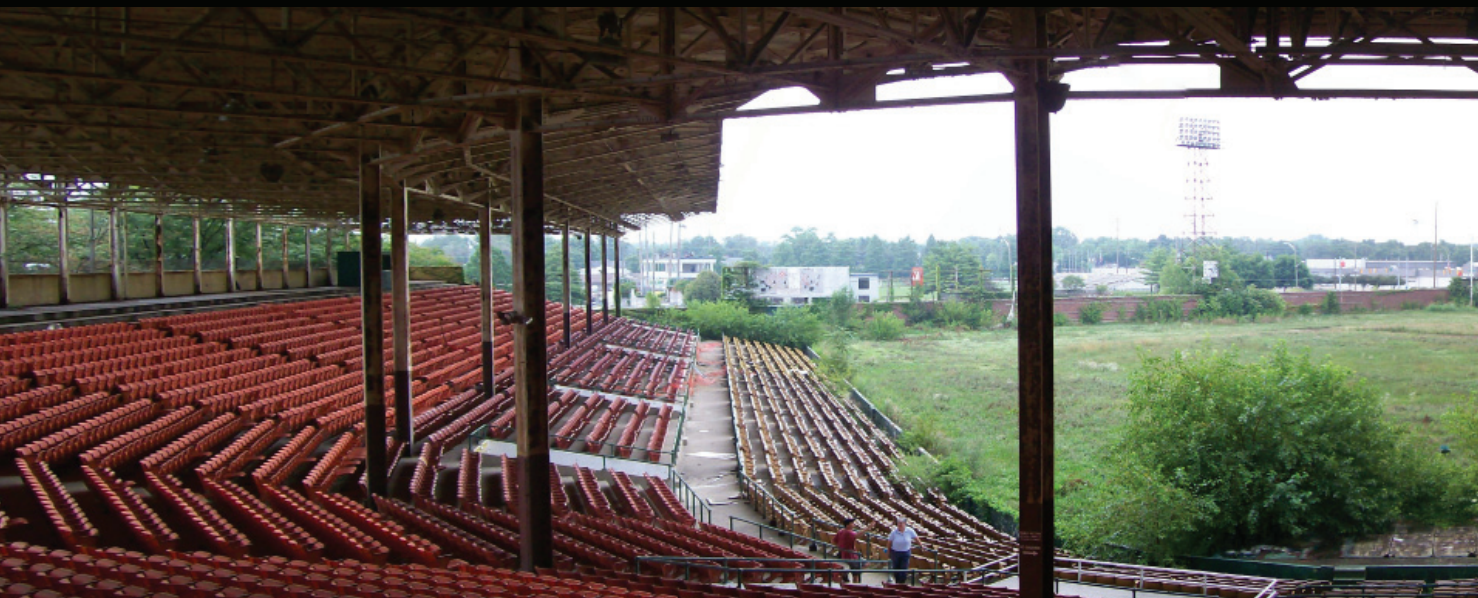
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# ***Project Requirements***

## **Goals and Objectives**

### Goal 1:

Create a free, one of a kind public park from the revitalized Bush Stadium.

#### *Objectives:*

Encourage various activities of passive and active recreation for the site.

Determine the needs of residents that would best suit a successful long term redevelopment strategy.

Allow large open green space and small green space pockets to serve different user groups.

### Goal 2:

Make circulation to and through the site safe and efficient.

#### *Objectives:*

Use the White River Greenway to connect users to the site.

Redevelop vehicular streets to bring people to the site.

Study the existing traffic patterns and potential for abandoned rail lines for increased access to the site.

### Goal 3:

Preserve the nostalgic quality of Bush Stadium.

#### *Objectives:*

Find suitable uses that could provide unique experiences in Bush Stadium.

Reference historic events and join them as one in Bush Stadium.

Reference Bush Stadium in the architecture of the proposed buildings on site.

### Goal 4:

Develop infill and/or retail establishments to financially benefit the site.

#### *Objectives:*

Allowing Bush Stadium to serve as a place to be for residents and off site users.

Developing the site to serve as a destination point for park and commercial users.

## Site Issues

There are various issues with the existing Bush Stadium site. Since the Indianapolis Indians left in 1996 for Victory Field, Bush Stadium has basically remained unused. The engineering report of the stadium states that the structure is “99% sound” but to make the site safe, millions of dollars would be required to fix wiring, plumbing, and mechanical systems as well as an lead paint or asbestos. There are additional issues as well. The programming for the site must create economic vitality for any future use to be considered, the context is basically an industrial setting, and 16<sup>th</sup> and the White River act as circulation barriers to the site.

As mentioned, the cost to rejuvenate the stadium would be quite large, thus any future use must combat the costs at the very beginning phases of design. The design proposed addresses this issue by reusing only the most important part of the existing stadium, which is the entrance located to the southwest. This was the most decorated portion of the stadium and offers the most to be preserved. Preserving this crucial part of the stadium also prevented costs for bringing the other concourse areas up to code.

What holds many other current-day proposals back from being a successful use for Bush Stadium is that the chosen program use is not economically sustainable. Bush Stadium must create revenue which potentially could go to create jobs that would be focused on maintaining the site. Using Bush Stadium as a park alone would not produce the financials to sustain the site. Programming infill living and commercial development on site creates

revenue to ensure the site is a keep safe and maintained as the design proposes.

The context of Bush Stadium is also an issue that is addressed at every stage of design and programming. The White River and White River Greenway are located south. Though both are great amenities, they act as a barrier to the site. Access to the site is cut off by the White River and there are few connection points across. The greenway is located atop the levee and limits the connection to the stadium. Furthermore, a nearly abandoned rail line encompasses the east portion of the site. 16<sup>th</sup> Street runs north of the stadium and is 4 lanes wide with a constant turn lane, which all but limits and pedestrian movement across the street. These 4 are issues for the redevelopment plan for Bush Stadium.

## **Client and User Groups**

The owner of Bush Stadium is the Indianapolis Parks Department. In fact, the park acts as a public park still today, having dawn to dusk hours for use (basically for the parking lot). More specially, this project has referred to Tina Jones of Indianapolis Park Department for advice through the design and development of the stadium.

The user groups for the newly planned city park range. The main audience is the residential neighborhoods to the north and southwest. Approximately 16,000 people live within two miles of the stadium as almost all of these

people are underserved by the currently available public parks. The users of the White River Greenway were also important clients in this proposal. The greenway brings various people to the site quite efficiently so creating additional green space for them was considered for this design. The same holds true for those people using 16<sup>th</sup> street. Because commercial development has been placed facing the street, accommodating to these vehicular users was also considered. An overlooked user group is the wildlife that calls the White River and its banks home. Developing a green corridor was important to allow for these animals to move from the White River.





*Introduction*

*Problem Statement*

*Background Information*

*Significance of the Problem*

*Project Requirements*

***Site Programming***

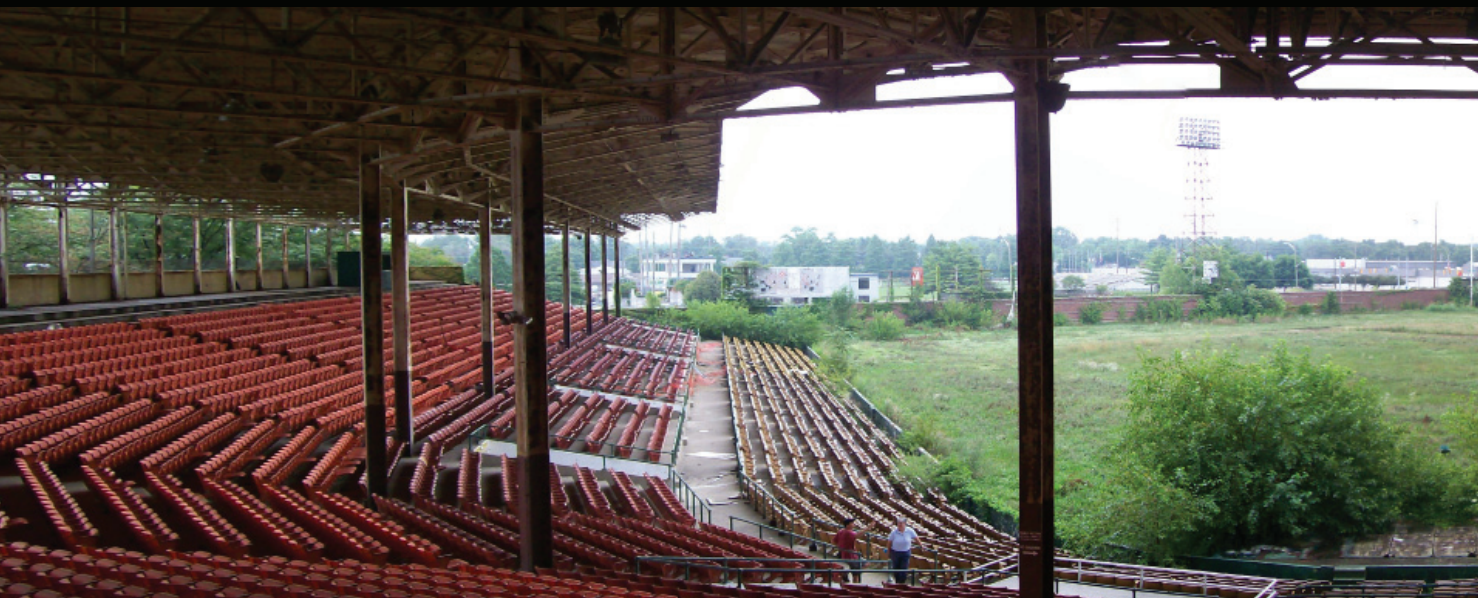
*Methodology & Design Process*

*Conclusion*

*Appendices*

*References*

.....



*Bush Stadium Revitalization*

.....  
.....  
*Programmatic Elements of the Site Design*

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## ***Site Programming***

Programming was critical for redeveloping Bush Stadium. Determining the use for the stadium determined how the rest of the site was used and designed.

- Open lawn created where the existing playing field was.
  - Outdoor movie theater (for pedestrian use, no vehicles)
  - Baseball, Softball (though no infield or bases are provided)
  - Frisbee
  - Football
  - Soccer
  - Various other activities that open lawn space allows. . .
- Developed the levee so that it provided access to the site
  - Pedestrian and bike use
  - Provide townhouse development on the levee to further encourage use of the greenways
- Created additional greenway on nearly abandoned rail line to increase access to the site
  - Basketball
  - Tennis
  - Plaza space
  - Pedestrian and bike users on new greenway

- Infill development
  - Small private green spaces and plazas for site residents
  - Developed access points from site to allow users to leave the site without the use of an automobile through trail networking
- Commercial development
  - Provide a supermarket (grocery store)
  - Outdoor cafes and resting nodes
  - Street redeveloped to pull people into the site
  - Public trailhead structure
- Adaptive Reuse of Bush Stadium
  - Preserve 3,000 of stadium seating for public use
  - Museum
    - Provide reference to historic artifacts of Bush Stadium in regards to how the Negro League used the stadium
    - Importance of Negro League in Indianapolis
    - Historic artifacts on display
    - Creates a place of destination for the site

Most notably, the programming does not include reusing Bush Stadium as a baseball complex. “Official 9 inning baseball” limited the possibilities for use on site. Thus, the Open Lawn space will function for the imagination of the user. The preserved portion of the stadium will use the previous concourse as

a Museum space that focuses on Negro League baseball history in Indianapolis as well as the history of baseball at Bush Stadium.





*Introduction*

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***Methodology & Design Process .....***

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*Bush Stadium Revitalization*

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## ***Methodology & Design Process***

This project determined how urban parkland can be designed on existing brownfield sites. To complete the proposed project, several methods of research and data will be used to help create the best use possible for the brownfield site. These sources will help answer the following questions:

- How do various types of urban green space function and what activities occur in them and how these activities fit the community?
- How will an urban park serve as a point of connection for pedestrian and bike movement?
- What have other adaptive reuse projects with an existing vacant structure done and how were the vacant structure and the surrounding site reused or redeveloped to create urban park space?
- How does redeveloped urban parkland benefit the community?

To understand how urban green space functions and what successful activities could occur in them, I would consult several sources. Great City Parks by Alan Tate provides several case studies and examples of urban park design. Old Cities/Green Cities by J. Blaine Bonham Jr. covers several different activities that involve community interaction. Land, Development, and Design by Paul Syms helps describe what makes activities succeed. Another great source will be Tina Jones of Indianapolis Parks. She has access to Bush Stadium, which is actually owned by the Parks Department. Paul Diebold, who works for the Indiana Department of Natural Resources in the Division of

Historic Preservation, helped with the registration process for the National Register of Historic Places and would be able to provide the actual nomination and history of the site. Also, Paul will be able to provide any integrity issues associated with redevelopment of the site. Furthermore, Geri Strecker, a teacher with the English Department at Ball State University has an interest in the history of baseball and could also be potentially interested with a reuse or redevelopment of Bush Stadium. Her knowledge will be very useful as part of the design process.

The circulation patterns of the site will be based on examples and studies from books and case studies. Anatomy of a Park by Donald Molnar provides a complete overview of how successful parks are designed. Molnar discusses the specifics of movement through different use spaces and overall circulation patterns. An interesting case study in Green Place, shows how the activity use in the park can turn into the mode of circulation. Also, GIS, Sanborn and Quad maps which may provide information for proper circulation to and within the site will be used. GIS can provide inventory and analysis for existing conditions while Sanborn maps can provide historic means of circulation by analyzing street layout.

The reuse or redevelopment of an existing structure like Bush Stadium requires an in depth knowledge of the building and its potential use. To begin studying this, I briefly analyzed Infill Development Strategies by the American Planning Association. This book covered techniques for plaza and small green spaces areas near heavy building use. To analyze how to redevelop or reuse

Bush Stadium, Bringing Buildings Back by Alan Mallach discussed many strategies. This source was additionally important because it covered the importance of the surrounding site and the need for urban green space. Adaptive Reuse by Richard Austin also covers several reuse and redevelopment techniques. Austin specially covers design specific strategies in building reuse and redevelopment.

A main reason for park space is the benefit it provides to the community. To study the potential benefits of parkland, a journal in Urban Institute by Chris Walker was used titled "The Public Value of Urban Parks." Walker points out that parks can benefit the community in health, social, environmental, and economic ways. Additional sources verified Walker's writing such as the *California Outdoor Planning Program* and a journal in *Urban Land* titled "Greenspace: Do the Math" by the Trust for Public Land. The *California Outdoor Planning Program* discussed the health and social benefits that parks provide while the journal by the Trust for Public Land supported the economic benefits of park space.

By using the above sources, case studies, and interviews I will be able to understand my proposal. Once I have gathered the best data from each source, design concepts begin for park space at a redeveloped Bush Stadium.



## Site Vicinity

Bush Stadium is located two miles northwest of Indianapolis, Indiana in Marion County. Marion County is the center most county in Indiana. There are four main contextual features that surround the site; the residential neighborhoods to the north and south west, the riparian systems, IUPUI and the city of Indianapolis to the southwest, and the currently available green space.

In 1996, Bush Stadium was officially abandoned by the Indianapolis Indians to move to the more walkable and accessible downtown Victory Field. Today, Victory Field is considered one of the finest triple-A baseball fields in the country. Ironically, Bush Stadium once held this same degree of respect when it was constructed. In the image below, one can see the project site and where the Indiana moved too.

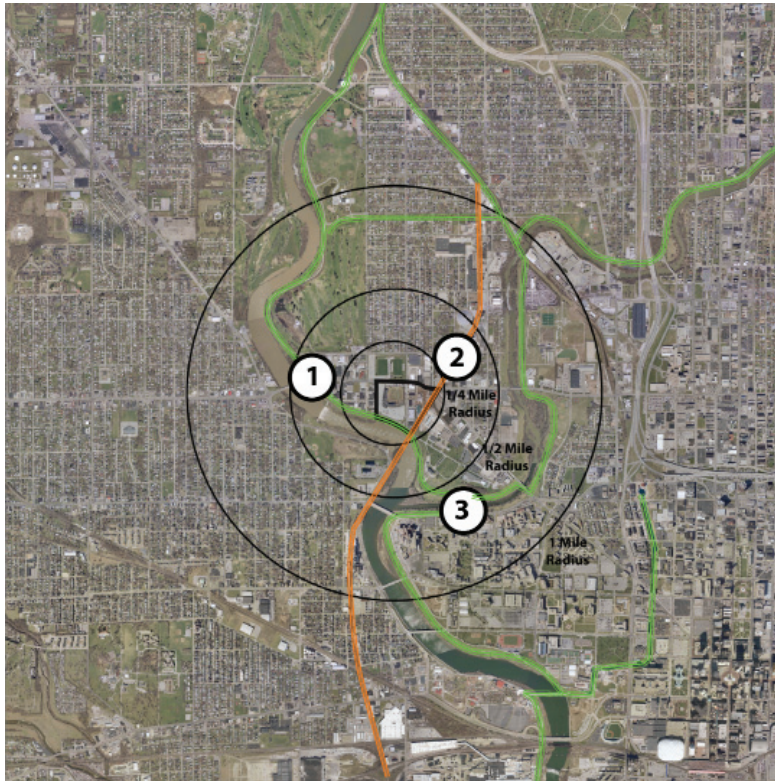


***Bush Stadium Vicinity  
Indianapolis, IN  
Figure 3***

1. Bush Stadium (Project Location)
2. Victory Field

*Gatlinburg, TN is one of the main entrances into the Great Smokey Mountains. This unique location developed the city into a tourist hub that promoted walkability and emphasized small town commercial development.*

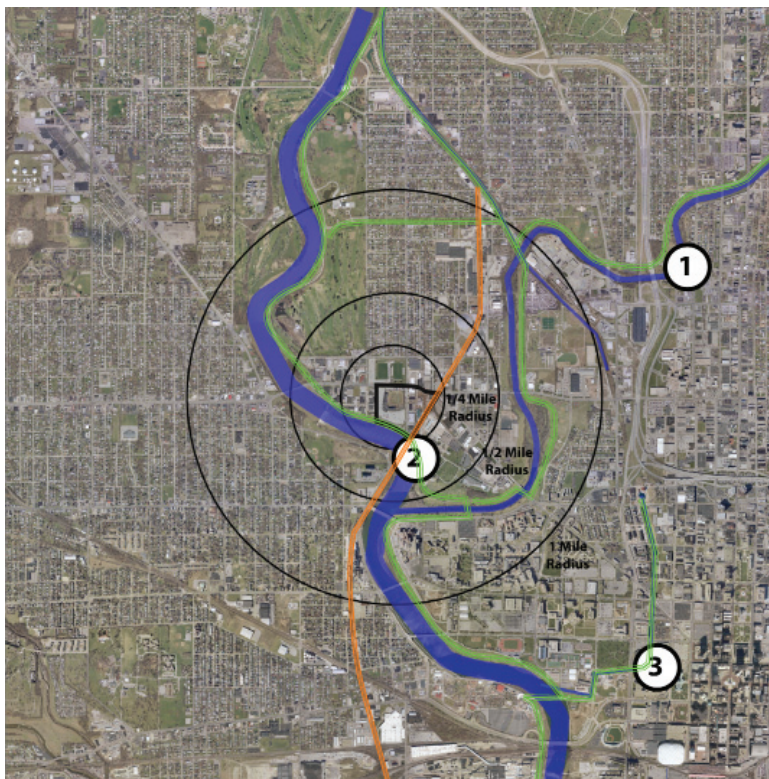




**Greenways  
Indianapolis, IN  
Figure 4**

1. White River Greenway
2. Abandoned Railway
3. Bridge connecting to IUPUI

The existing trail system in the northwest side of Indianapolis is the White River Greenway. The greenway is found along side of various waterways. However, an abandoned railway (shown as orange) offers the ability to be converted to a greenway. The new greenway would pull users from the residential neighborhoods and provide more inland trails.



**Waterways  
Indianapolis, IN  
Figure 5**

1. Fall Creek
2. White River
3. White River Canal

The White River is located on the west side of Indianapolis. It intersects with Fall Creek south of Bush Stadium. Both the White River and Fall Creek are large river systems that disconnect areas of Indianapolis. However, the White River Canal is a highly used amenity to downtown Indianapolis and brings the city together, rather than acting as a barrier.



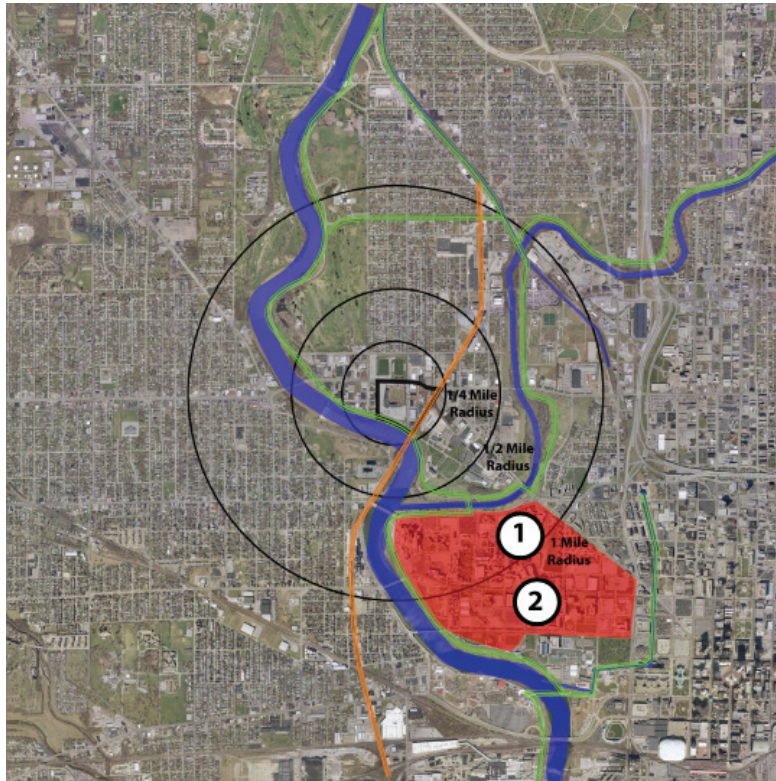


### Greenways

The trail network around Bush Stadium is made up of the White River Greenway. The greenway pulls people from downtown Indianapolis out to the White River. Most of the trail networking follows a water body in some way, which limits access to the trail. No trails are integrated into the residential community to the north or southwest of the site. To create inland trails, a nearly abandoned railway was used to draw residents in from the north and south west. Additionally, infrastructure is already in place to connect to downtown Indianapolis.

### Waterways

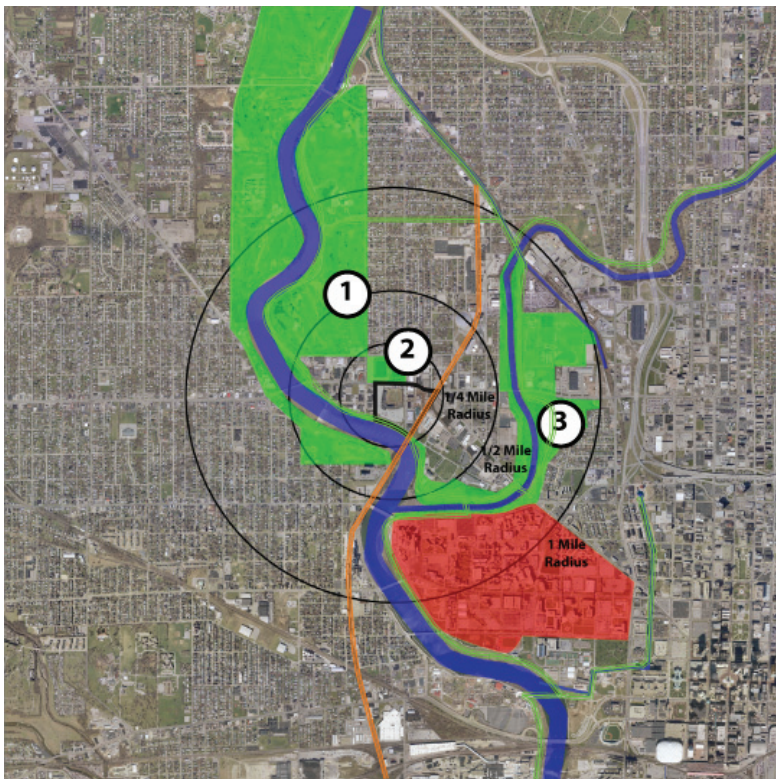
The White River, Fall Creek, and White River canal make-up the chief riparian systems in Indianapolis. Each offers something different in scale and aesthetics. The White River is quite large and requires bridge infrastructure to cross. Fall Creek is a smaller scale water system that also requires bridge infrastructure to cross. Much like the White River, Fall Creek's edge is made up of scrub plants, most of which are invasive. However, the White River canal is a highly developed downtown aquatic amenity that is very refined. Hardscape constantly surrounds the canal with beautiful displays of ornamental plantings. It is very small and usually just 15-20 feet wide and anywhere from three to eight feet deep.



**Proximity to IUPUI  
Indianapolis, IN  
Figure 6**

1. Campus Amenities
2. Campus Living

*Gatlinburg, TN is one of the main entrances into the Great Smokey Mountains. This unique location developed the city into a tourist hub that promoted walkability and emphasized small town commercial development.*



**Greenspaces  
Indianapolis, IN  
Figure 7**

1. Golf Courses
2. Kuntz Soccer Complex
3. Fall Creek and 16th Street Park

*Gatlinburg, TN is one of the main entrances into the Great Smokey Mountains. This unique location developed the city into a tourist hub that promoted walkability and emphasized small town commercial development.*



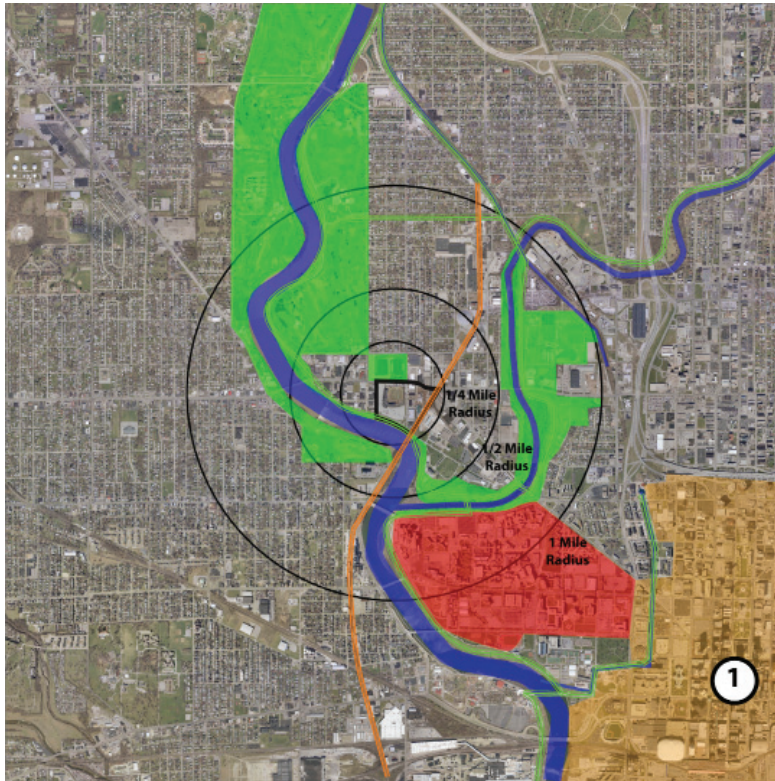
### Proximity to IUPUI

Connections to IUPUI and the city of Indianapolis were vitally important for increasing access to the site. The existing White River Greenway currently connects to the campus, which is located less than one mile away. With this ideal proximity to IUPUI, student housing would be a successful development somewhere on the project site. Also, the proximity of IUPUI to the site meant that proposing infill would be effective. According to IUPUI students, approximately half of off campus students live within one mile of campus. Thus, infill would appeal to IUPUI students because it is within a one mile walk or bike ride to campus.

### Greenspaces

In the area surrounding Bush Stadium, there are large areas of green space, but few of which available for public use. For instance, the Kuntz Soccer complex and several golf courses are not available for free or everyday use. Also, existing parks are under-maintained in the area and are not inviting to use. Fall Creek and 16<sup>th</sup> Street Park is the nearest public park space. Using Bush Stadium as public park would draw people into the site because of the lack of other public park space.

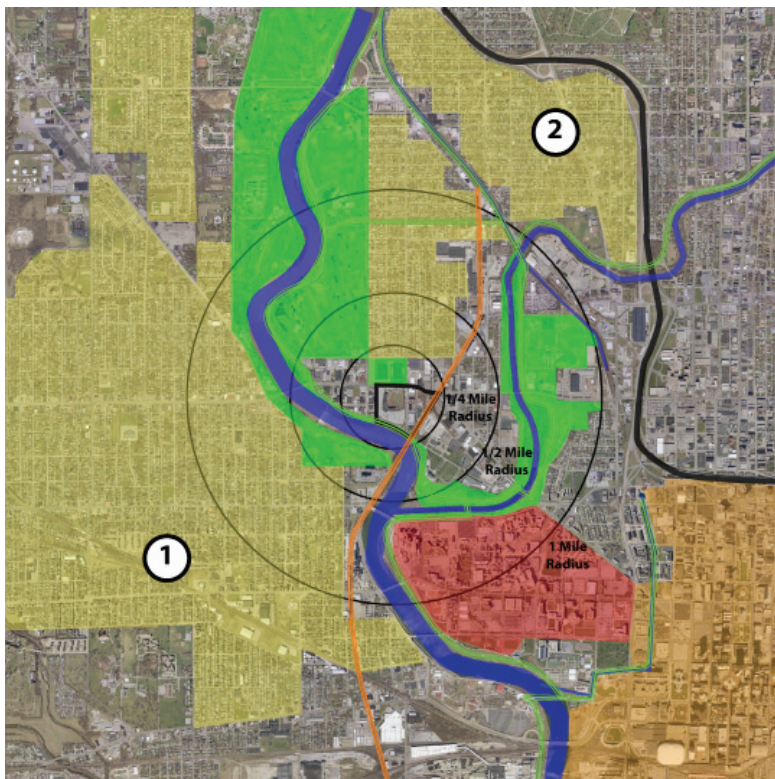




**Proximity to Downtown Indianapolis, IN**  
**Figure 8**

**1. Downtown Indianapolis**

*Gatlinburg, TN is one of the main entrances into the Great Smokey Mountains. This unique location developed the city into a tourist hub that promoted walkability and emphasized small town commercial development.*



**Residential Neighborhoods Indianapolis, IN**  
**Figure 9**

1. Speedway
2. Fall Creek Place

*Gatlinburg, TN is one of the main entrances into the Great Smokey Mountains. This unique location developed the city into a tourist hub that promoted walkability and emphasized small town commercial development.*





### Downtown Indianapolis, Indiana

Downtown Indianapolis is approximately two miles away from Bush Stadium. Many residents use downtown for work, food, and recreational needs. However, being more than two or three miles away for some residents, access to the city is not achievable in a short period of time. Using Bush Stadium as a destination point like that of downtown Indianapolis will bring people to the site for work, food, recreation, and even residential living.

### Residential Neighborhoods

Approximately 16,000 residents live in the neighborhoods that surround Bush Stadium. They have very few amenities that are needed for daily life. Though these amenities do exist, they are not within a comfortable walking distance for many residents. Bush Stadium is centered between these two neighborhoods and will become a destination point that will draw the residents, IUPUI, and the city of Indianapolis together.

## Site Vicinity Photographs



***IUPUI Cmapus Living  
Indianapolis, IN  
Figure 10***

*Site photo by author taken in  
February of 2010.*



***White River Greenway  
Infrastructure  
Indianapolis, IN  
Figure 11***

*White River Greenway bridge  
crossing Fall Creek just north of  
IUPUI.*

*Image taken by author in  
February 2010.*

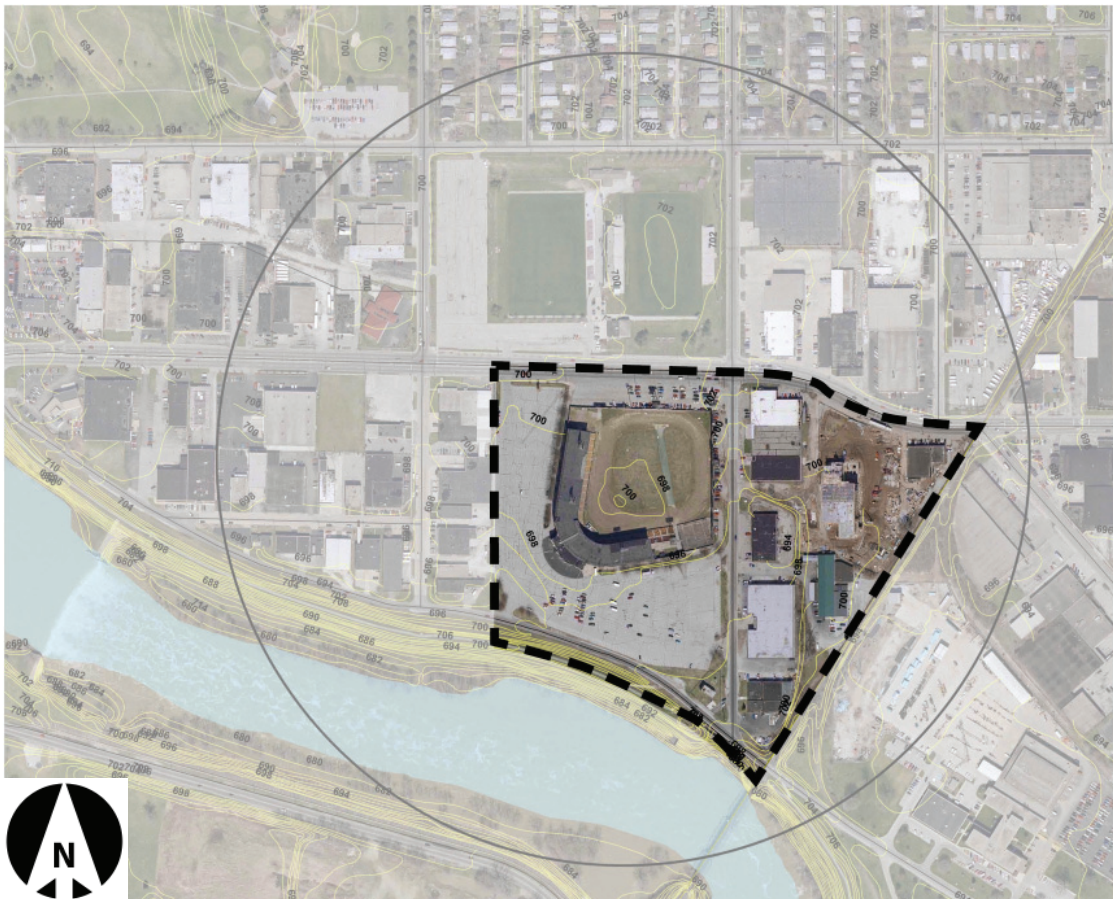
***Project Location >>>  
Indianapolis, IN  
Figure 12***

*Bush Stadium shown in context  
with a 1/4 mile radius.*

## Site Location

At a smaller scale, various other site conditions become known. Kuntz Soccer Complex and the levee which supports the White River and White Greenway are located to the north and south respectively. The immediate surrounding context can be seen as large wholesale distribution area. The result is large building footprints with equally and if not larger parking lots for the large vehicles that use this space.

The project site is nearly 50 acres. East Riverside Drive forms the boundary to the west of the site, while a nearly abandoned rail line forms the east side of the site. The levee forms the boundary of the site to south and 16<sup>th</sup> Street is the boundary to the north. North Harding Street bisects the center of the site and connects to White River Boulevard which runs along the levee.



## Inventory & Analysis of Site & Site Context

The existing inventory on and around the site is quite diverse. At the site scale, there are several pieces that contributed toward the overall design. Circulation components such as 16<sup>th</sup> Street, greenways, and specific railroads are seen in greater detail. Other site specific details that are important at the site level are the existing figure ground and corresponding land use.

The following site inventory and analysis will be shown:

- Structure (Figure Ground)
- Circulation
- Land Use
- Vegetation & Hydrology

### Structure Inventory & Analysis

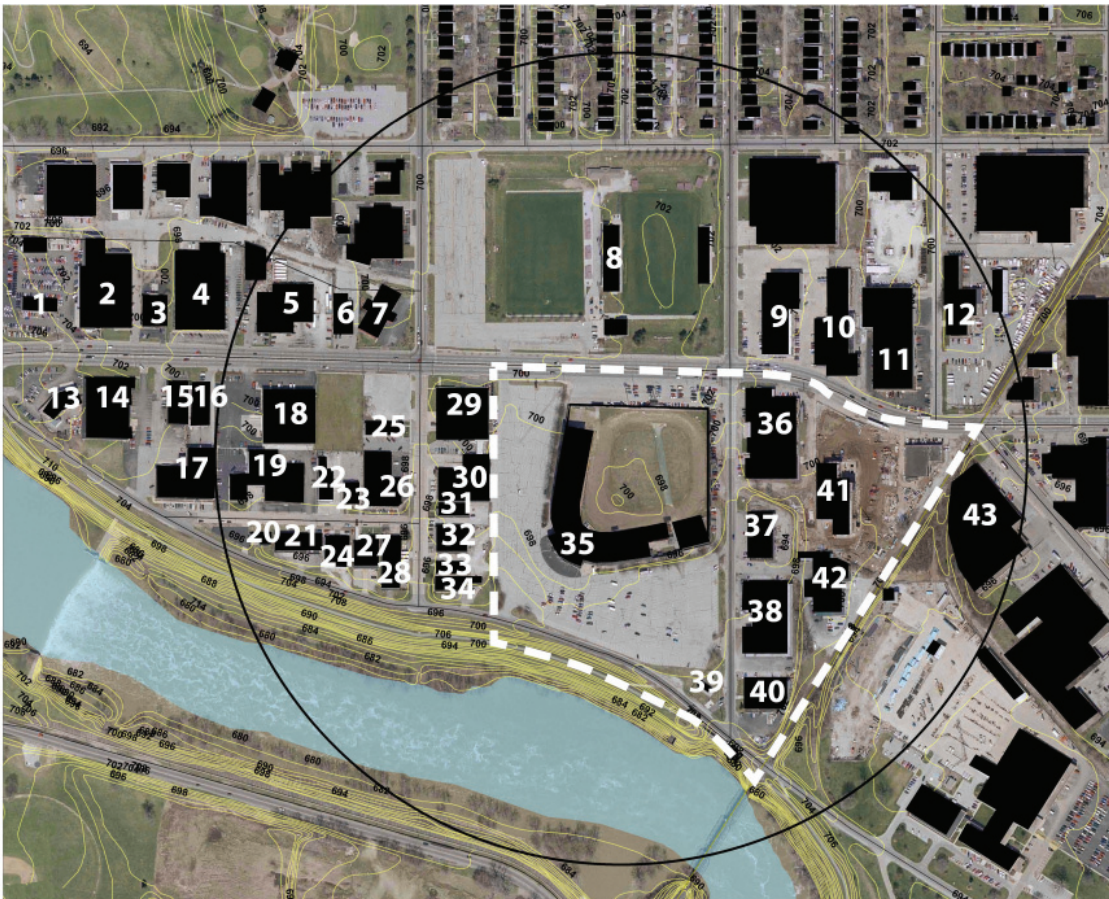
The surrounding structures to the site consist of large wholesale distribution companies, with a mixture of car dealerships and IUPUI facilities. The catalyst biomedical structure on site, structure #41, could become the role that future buildings begin to develop around.

**Figure Ground** >>>  
**Indianapolis, IN**  
**Figure 13**

*Existing structures within the  
context of Bush Stadium.*



- |                         |                            |                                     |
|-------------------------|----------------------------|-------------------------------------|
| 1. Falcone Subaru       | 16. Glidder                | 31.                                 |
| 2. Falcone Subaru       | 17. Pepper Construction    | 32. T.L.C., Indy West, Reista-Temps |
| 3. For Lease            | 18. Grainger               | 33. IATSE                           |
| 4. IUPUI Bookstore      | 19. A.P. (Appliance Parts) | 34. Brock Construction              |
| 5. Whitney's Furniture  | 20. Church Directory       | 35. Bush Stadium                    |
| 6. Southern Trailways   | 21. Race Car Restorations  | 36. Spectrum                        |
| 7. Ada's Palace         | 22. Ritz Safety            | 37. Great Lake Products             |
| 8. Kuntz Soccer Complex | 23. Elks Lodge             | 38. Eskew Enterprises               |
| 9. Kirby Electric       | 24. For Lease              | 39. Power and Water Station         |
| 10. Kirby Electric      | 25. Union Hall #120        | 40. Ideal Heating & A.C.            |
| 11. Graybar Electric    | 26. Print Resources        | 41. Biotech Research & Training     |
| 12. For Lease           | 27.                        | 42. Marvin's Flowers                |
| 13. Speedway Collision  | 28. IUPUI Transportation   | 43. Wesco Distribution              |
| 14. U/R Heating         | 29. D.E. Baugh Graphics    |                                     |
| 15. ICI Paints          | 30. Mattax-Moore           |                                     |



## Circulation Inventory & Analysis

Circulation to Bush Stadium consists of 16<sup>th</sup> Street which is a main east-west arterial for Indianapolis. 16<sup>th</sup> Street is a four lane road with a constant turn lane and even the occasional right turn lanes. This makes the road up to six lanes wide at some locations. East Riverside Drive (west of the stadium) and North Harding (east of stadium) are two smaller vehicular roads that begin at the south portion of the site and continue north into the residential neighborhood. Both are two lanes of vehicular traffic with on street parking permitted in particular areas of the street. 15<sup>th</sup> Street is a small east-west road that is only 800' in length. The road is two lanes wide with on street parking available on the south side of the road. White River Boulevard is a two lane road with no on street parking that often finds itself acting as a "race track" for vehicular traffic. It is found on the south end of the site and follows the path of the White River.

IndyGo bus routes 25 and 6 intersect at the intersection of North Harding and 16<sup>th</sup> Street. There are also stops on both of these routes at this location.  
(Shown as black circle at intersection)

Bike and pedestrian movement are strictly found on the White River Greenway, which sits atop the levee on the White River. No vehicular roads offer any pedestrian or bike access to the site.

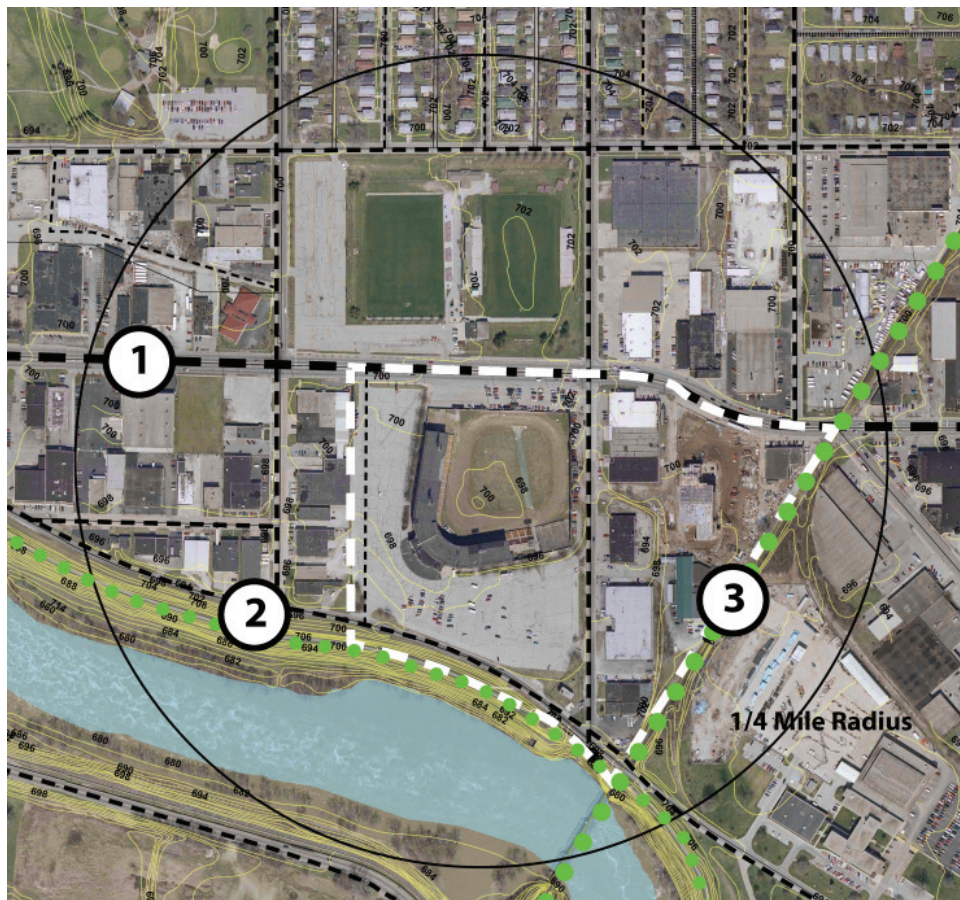
***Greenways around Site >>>  
Indianapolis, IN  
Figure 14***

1. 16th Street
2. White River Greenway
3. Abandoned Railway



According to Eskew Enterprises, the railroad line that creates the eastern boarder of the site is “nearly abandoned.” The railroad continues approximately three miles north and ends. The railroad continues over the White River by ways of an iron bridge. The rail continues south and then turns gently until it heads due east away from Indianapolis.

Circulation via the White River is impassable due to a dam that is located southwest of the site. However, the dam could be a point of access for a newly developed bridge to access the White River Greenway.



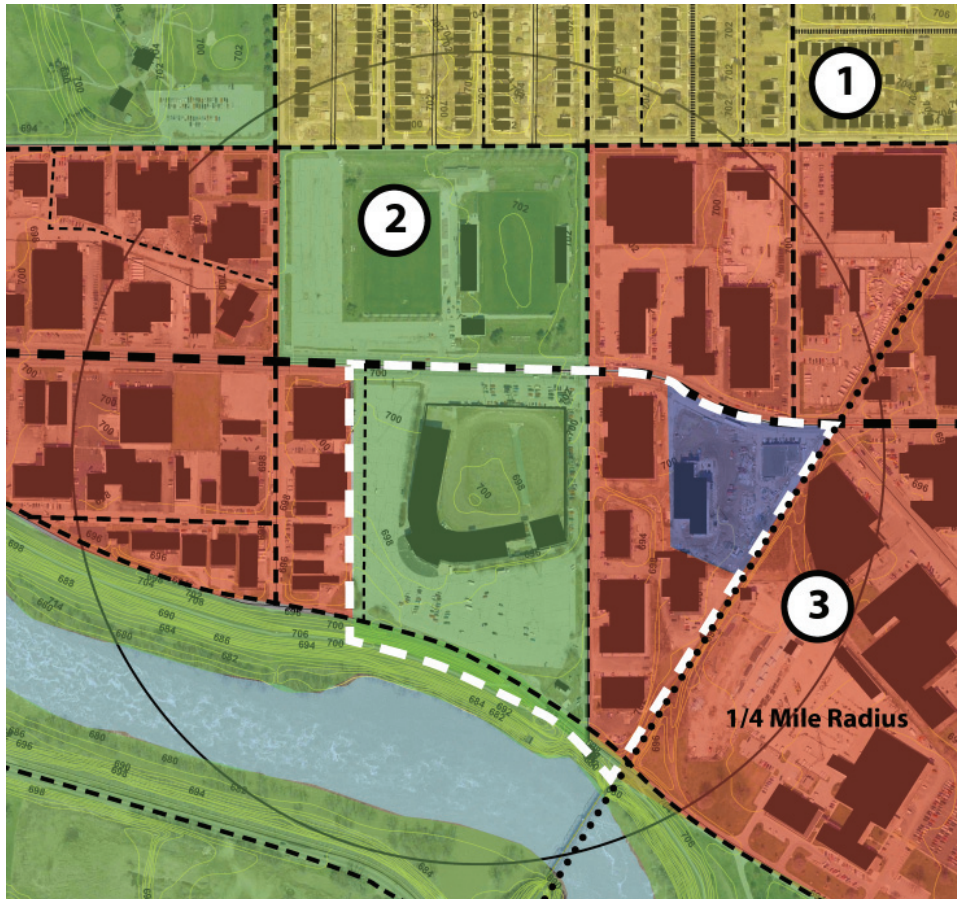
## Land Use Inventory

The land use surrounding Bush Stadium is that of wholesale distribution which can be described as light industrial or heavy commercial. The green space that surrounds the site can also be seen as well as single family residential to the north.

The light industrial/heavy commercial development of the area offers little building density as the area has been developed for large trucks or heavy equipment to use or be used in the area. Thus, large expanses of concrete are found between every building. The development at Bush Stadium will prove to be a catalyst for the rest of the area by encouraging other building to create small pockets of green space, or private parks, between structures.

The green space that surrounds Bush Stadium is practically unusable for the average park user. Kuntz Soccer Complex and the local golf courses all require payment and offer little "open" space for the more casual user. Furthermore, the green space that surrounds the White River consists of the levee and large areas of shrub and brush that overrun the lower banks. Together, this makes the banks of the White River unusable. The park space on the south side of the White River is under maintained and not nearly large enough for the surrounding residents.

The Site Vicinity offers a broader view of land use. IUUI is located within one mile from Bush Stadium, and downtown Indianapolis is within two miles.



**Land Use**  
**Indianapolis, IN**  
**Figure 15**



1. Residential
2. Park Space (zoned that way)
3. Commercial

*The biomedical catalyst is shown in purple.*

## Vegetation and Hydrology Inventory

The vegetation and hydrology work together around Bush Stadium. There is little vegetation except what is found off the White River and Fall Creek.

The White River is the chief body of water that flows from the north toward the city. It moves nearly due south on the west side of Indianapolis and continues that way until it reaches Johnson County. The White River is at one of its widest points at the Bush Stadium site location.

Fall Creek flows southeast of the site. This small stream connects to the White River south of the site. Fall Creek has been a major amenity to neighborhood redevelopment in northern Indianapolis.

All vegetation around Bush Stadium is strictly contained to what exists around the White River. As mentioned, several golf courses such as South Grove Golf Course and Coffin Golf Course are located east and west of White River which provide basically all of the vegetation in the area. Street trees are only located within the neighborhoods to the north.

## Bush Stadium Analysis

Site analysis and contextual analysis will be covered in this section. At the site scale, there are several items to consider for design. Bush Stadium offers several unique conditions that have caused previous proposals to fail.

At a more broad view, the White River, White River Greenway, existing roads and rails, and surrounding structures have influenced the design of the area. Thus, the following analysis will be represented in this section.

- Analysis limited to the site
- Broad view of analysis in relation to the site and proposed design

### Site Specifics

There are diverse details to understanding the site analysis of Bush Stadium. For example, the interior of the stadium, compared to the playing surface, compared to the existing parking lot, all offer different types of conditions. At the site level, Bush Stadium needs to be understood in the following ways.

- What can be preserved?
- How would one create livable conditions for people?
- How are the newly developed buildings located and designed?
- What forms of transportation should be in and immediately around the site?



- What do the natural features have to offer?
- What will be the unique feature that draws people to Bush Stadium?

### Preservation Opportunities & Constraints

There are several pieces to Bush Stadium that need to or could be preserved. The stadium, the field, and the outfield wall are all important components because they define the programming for the space. If the wall is removed then 9 inning baseball becomes more difficult. Also, if the entire stadium is preserved, then there needs to be a programmed use for 12,000 seats. However, preserving a smaller portion of the stadium results in a more useable design for what could take place where portions of the stadium once stood. Preservation is relevant at every stage of site design and was always considered. Portions of the stadium may be preserved, but it is still possible that the stadium would fail to meet the National Registry criteria after an implemented site design.

### Circulation Opportunities & Constraints

Circulation on site has opportunities and constraints. Because the White River Greenway and railroad are features for circulation, people will have access to the site. However, current access from the greenways is restricted to very few access points. This means that circulation points from the greenway must increase but still be focused to particular locations. Additionally, the White River Greenway disconnects the site to the greenway. Moving the road or providing access across it would promote safer travel into the site. Other



opportunities and constraints in regards to circulation is 16<sup>th</sup> Street to the north and the existing building footprint.

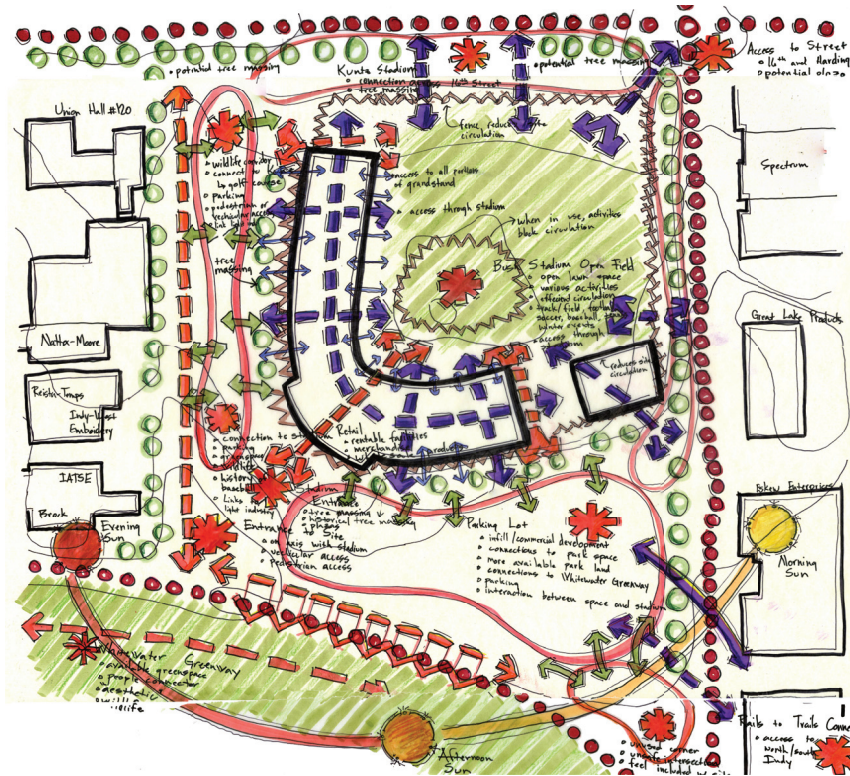
One restriction to circulation on site is the current building fabric. For example, light industry blocks 15<sup>th</sup> street from connecting into the site. Thus, structures have to been redesigned or partially removed to enhance movement. The most building redevelopment took place just east of North Harding Street. Buildings are zoned a mix between heavy commercial and light industrial. These buildings block access to the site from the greenway. Because of this, these buildings need to be redesigned, partially removed, or demolished to enhance circulation to the newly proposed greenway. Access along the south side of 16<sup>th</sup> Street to the new greenway would likely be a point of circulation. Thus, the buildings in the northeast portion of the site were also addressed.

As for 16<sup>th</sup> Street, it severely limits access across it to the neighborhoods to the north and Kuntz Soccer Complex. Addressing the road to serve additional forms of circulation will reduce traffic speeds and make it safer for users to cross 16<sup>th</sup> Street. However, the opportunities of 16<sup>th</sup> are that it will bring the majority of vehicular traffic to the site, so movement on the street must be efficient enough to continue to bring safe volumes of traffic.

#### On-site Building Development Opportunities & Constraints

Building development should address 16<sup>th</sup> Street to ensure continuous use from the street by vehicular and bike/pedestrian use. Building development within the site though must also strive to pull users off the street into the site.

Interior buildings need to be developed to respect the historical nostalgia of Bush Stadium. This way no structure would rival the stadium and a form of preservation is observable through the new architecture. The opportunity of developing additional buildings on site is that the density of the area increases. Also, commercial use would begin to create a “baseball village” type development directly adjacent to the west of the stadium. The constraint of interior building development is the reduced access from 16<sup>th</sup> Street. Parking should be readily available but not encouraged for interior access to the site.



**Overall Site Analysis  
Figure 16**

*The key components of the site analysis were the preserving the open lawn, providing a functional use for the stadium, connecting to the White River, and providing various corridors.*

## Historical Opportunities & Constraints

The specific architecture of the stadium provided a unique strategy to organize the rest of the site. The image below shows the floor plans of Bush Stadium with the tunnel locations. These tunnel locations take previous fans from the concourse to their seats. This is when one first identifies being at the game. It is the first view of the field. To preserve this feeling and view, the tunnel locations were used to create vistas into the site. This is one form of preservation that is not directly seen through structure saving or rehabilitation. The tunnel views are an indirect way of preserving Bush Stadium.



**Historical Analysis  
Figure 17**

*Historical analysis identified that the most important parts to the stadium should be preserved as well as working with the previous tunnel locations to organize the site.*



## Design Precedents

To create the vision for Bush Stadium, several case studies that applied to my designs. The chief components of the Bush Stadium site design are:

- Preservation
- In-fill and Mix-use
- Park Design
- Details

### Preservation

Preserving Bush Stadium was an important goal throughout design on the project. Three different case studies for reference in properly preserving the stadium were observed. The first and the most well known project I referred to was Gas Works Park in Seattle, Washington. Designed by Richard Haag, the park welcomes the past use of the area of an industrialized area by keeping the existing infrastructure from the factories. The remaining space was designed into park space for use by residents and visitors. The takeaway point or item used for from Gas Works Park was to use only the most relevant and important parts of Bush Stadium. It may not be necessary to preserve the entire structure, but just the parts that provide in Bush Stadium's case the most integrity and historical nostalgia.





**Gas Works Park - Seattle, WA  
Figure 18**

*Gas Works Park is a 19 acre park found in Seattle, Washington. It was designed by Richard Haag in early 1970's and later opened to the public in 1975.*

*It has become a landmark in the country for the combined effort in park design and adaptive reuse.*

The most literal case study referred to in respect for preserving baseball diamond, was Rickwood Field in Birmingham, Alabama. This stadium was also used by the Negro League and like Bush Stadium was left for dead in 1987. However, preservation efforts have created a still very active and in use facility for local colleges, high school, and local baseball events. The takeaway point from this project was that programming to new use of Bush Stadium is very import for the design and development for the rest of the site.



**Rickwood Field - Birmingham, AL  
Figure 19**

*Rickwood Field, located in Birmingham, AL is just one of the four remaining fields in which a Negro League game was played. However, what makes it interesting is that Rickwood Field is one and only of four that is in current use.*

*The stadium was built in 1910 and continues to be used as a baseball complex till today.*

The second project studied was Piazza Navona in Rome Italy. The plaza was once used as a “circus” in the first century A.D. It was not till the later 15<sup>th</sup> century that the site changed to what you see below. The preservation idea taken away from this particular case study was to recreate the outfield at Bush Stadium by not being too literal. By removing the existing outfield wall and replacing it with building façade, the space and nostalgic feeling of the baseball field was preserved with nearly the same dimensions Bush Stadium had. Piazza Navona was also referred to when designing the infill and mixed-use building development.



**Piazza Navona - Rome, Italy**  
**Figure 20**

*Piazza Navona uses the space that was once used by 'Circus Domitian' in first century AD. The ancient romans came to this play to watch various games or events.*

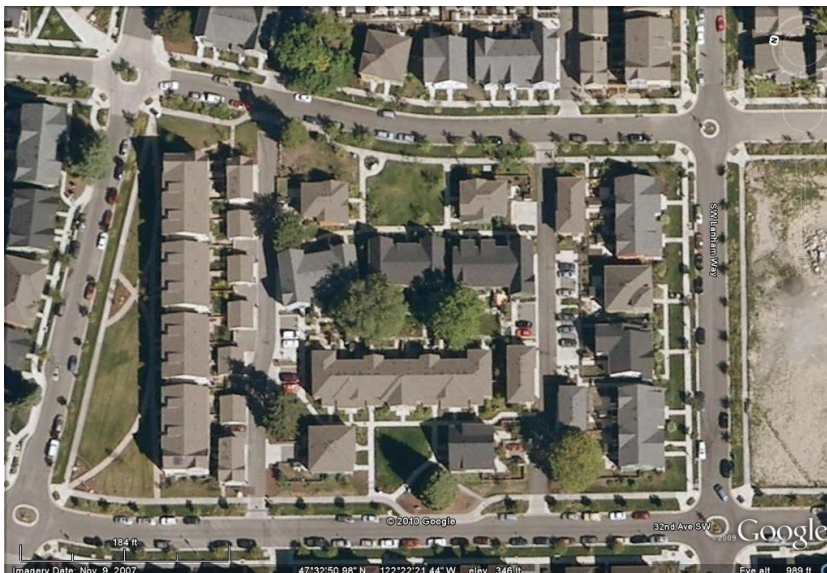
*Since, the seating has been replaced by building development, but the space remains preserved.*



## Infill and Mixed-use

When developing the building footprint on site, High Point Neighborhood in Seattle, Washington offered interesting ways to design infill housing. The neighborhood creates several private spaces for residents while also designing the site to function without large parking lots. The housing was designed in such a way so that small alleys provide on street parking. The alleys bisect each block. On-street parking is available on the main roads as well, but residents can feel more secure parking their cars within the more personal alleys.

Each residential block also has a common green space where residents are able to relax without being in a public realm. Because each block offers both public and private spaces, there is a variety of spaces for a variety of people. Public parks and green space are still offered, but a mixture of these public and private spaces located so close to the residence makes this site design unique.



**High Point Neighborhood  
Seattle, WA  
Figure 21**

*High Point sits on 120 acres on the west side of Seattle, WA. When completed this year, it will house over 4,000 residents and is already considered one of the most environmentally friendly communities in the country.*



The street-to-building design was inspired and taken from the successful downtown development of Gatlinburg, Tennessee. The main takeaway point from Gatlinburg is that the site promotes walkability and provides several small “mom-and-pop” shops located along the main road. Street parking is available on both sides with pedestrian crossings at street intersections and midpoints. The result is a traffic pattern that moves very slowly. The majority of the buildings are approximately 25’ feet tall, creating more of the village feel and comfortable to the human scale.



**Gatlinburg, TN  
Downtown Development  
Figure 22**

*Gatlinburg, TN is one of the main entrances into the Great Smokey Mountains. This unique location developed the city into a tourist hub that promoted walkability and emphasized small town commercial development.*

### Park Design

Creating a unique park was important in complimenting the entire site and invite additional users to Bush Stadium besides those will live in the newly proposed infill. One of the most unique park designs referred to was Parc Andre-Citroen, in Paris, France.

Parc Andre-Citroen was also incorporated into the design at Bush Stadium. First, was to create a series of pocket parks, or “serial parks.” These small parks are part of the greater good, but create very private spaces. The spaces are separated by bridges that connect residential users just off site to the more grand open space that is centrally located. This idea of creating both private and public spaces in the park prompted my design for Bush Stadium to do the same. Residents of the site will need their private space to be able to relax without being bothered by the presence or noise of others.

The first park bridge was translated into the design off the White River Greenway. The first stairway steps up to the street, but the others do not meet grade.

Another unique feature of this park is the views and vistas that are created at many different angles. It inspired design terms of an alley to draw users into the grand open space. Attracting users from the frequently used greenway was an important process to the design. Parc Andre-Citroen displayed how to use angles properly to invite users into the site.



**Parc Andre-Citroen - Paris, France  
Figure 23**

*Built on top of a previous automobile manufacturing plant, Parc Andre-Citroen is a 35 acre public park.*

*The park was opened in 1992 and offers a unique variety of public and private space as well as many different attractions and spaces for activities.*



The second case study referred to was Olympic Structure Park in Seattle, Washington. This was used case study in designing portions of the existing White River Greenway but also the newly proposed greenway on the old railroad line.

The most interesting part of Olympic Structure Park was how the user experienced different level changes throughout the experience of the space. A park user will actually travel down before going back up and over a very busy four lane highway. It was important to duplicate this efficient circulation of design at the intersection of the greenways. There was approximately eight to ten feet of grade change from both greenways so there were great opportunities to create a special space while using the topography. Olympic Structure Park also refers to a stairway for a detail that translated into the park design at Bush Stadium.



**Olympic Structure Park -  
Seattle, WA  
Figure 24**

*Olympic Structure Park is a small 9 acre public park and museum display space. It was a former industrial site and until being transformed into one of a few greenspaces in downtown Seattle.*

*It was designed by Charles Anderson Landscape Architecture with several other consultants.*

## Details

There are several case studies that were applied to the details throughout the site. These main details were taken from the following:

- Road width narrowing
- Unter de Lindens, Berlin, Germany
- Stairway at Olympic Structure Park, Seattle, Washington

To increase access to the site, I studied how transportation to and through the site could be designed. As seen is the case study below, reducing the size of travel lanes to ten feet while adding a bike lane and on street parking to decrease traffic speeds.



**Before**



**After**

### **1st Avenue North and 49th Street St. Petersburg, FL Figure 25**

*In this previous street condition in St. Petersburg, the road widths were 12' with a constant right turn lane.*

*To begin to correct the problem of street erosion, a condition in which the street becomes difficult to cross and geared only to vehicular traffic, the lane widths were reduced and bicycle lanes added. In this case study, the city of St. Petersburg reduced the lane widths to 11 and even ten feet.*

*Additionally, bicycle lanes were added to promote various lanes types of circulation. Street parking buffers the bicycle lane from any sidewalk next to the street.*



Reducing the driving lanes allows an opportunity for alternative transportation such as bike lanes and wider sidewalks for pedestrian movement. On-street parking acts as the buffer that separates the pedestrian from vehicular traffic as well as from the bike lane. This particular case study applies directly to 16<sup>th</sup> Street. With an increase of people and bicycle use on site, 16<sup>th</sup> Street has been redesigned to mimic some of the properties such as reducing lane size, providing buffers between forms of transportation, and allowing the pedestrian intersections.

Unter de Lindens is a pedestrian walk located in Berlin, Germany. It is located between one of the more traveled roads in Berlin. It was studied to see how it could be implemented into features at Bush Stadium. First, Unter de Lindens creates a canopy over the user at about 15' with the use of Linden trees. There is also plenty of seating, vendors, and people watching available. There is a defined edge on each side of the promenade made by the road, which consists of one way traffic. There is also destination point at the end. The promenade leads to one of Berlin's largest parks that is densely planted and provides a mixture of public and private spaces.



***Unter de Lindens -  
Berlin, Germany  
Figure 26***

*Formed in the 16th century, Unter de Lindens is a pedestrian corridor situated between a vehicular road with the same name. The park is on axis with a large public park on the far west end of the alley.*

*The alley was developed from a bridle path John George of Brandenburg used his reach to the hunting grounds.*

Applying these elements to the site was very important. The alley at Bush Stadium will need people-watching spots, seating, possibly small vendors (could take the form of retail establishments), and a destination point. The canopy of the trees must also provide a comfortable place to pass through or to relax.

The small park space developed on the southeast side of the site has details inspired from Olympic Structure Park, in Seattle, Washington. The stairway located adjacent to the “waves” translates to the design at Bush Stadium. The terraced lawn has steps located on the far side. The terraced portion has sitable 18” wall. Behind each wall is a small portion of lawn. This type of circulation progression was applied to the site design.

## Design Concepts

To evolve to the final design master plan, there were previous designs and concepts which helped create the final design.

- Diagrammatic Drafts
- Developed Concept

### Concept 1; Diagrammatic Drafts

Early in the design process, conceptual drafts were composed to begin to create spaces that developed into site specific designs on site. Each draft has important elements that can be seen at the developed concept. The takeaway points from the beginning diagrammatic stages are that:

- They playing surface should be preserved.
- Commercial development should favor 16thStreet.
- Infill should offer both public and private greenspaces for its residents.
- Pedestrian and wildlife corridors should be located throughout the site for efficient access through the site.
- Rerouting the White River Boulevard should be considered.
- Public (museum) space can be integrated into the stadium or elsewhere on site.
- The existing footprint of the stadium can be broken down into smaller pieces.
- Interior access roads are necessary.

Each diagrammatic draft added important pieces to the development of the final master plan. For instance, the open lawn was something which needed to be carried out in every design concept, while commercial development altered throughout each draft. Other concepts that were taken from these beginning diagrammatic drafts were idea of private greenspaces for residents and developing interior access routes for car, pedestrians, and wildlife.



**Draft 1**  
**Figure 27**

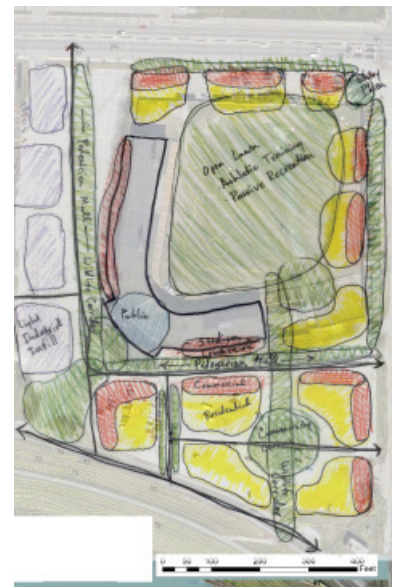
The main ideas for draft one was to promote corridors from the White River into the site. Also, interior roads that run both east-west and north-south were added. The White River Boulevard was also removed to allow building development to takes its place.



**Draft 2**  
**Figure 28**

Draft 2 addresses the importance of placing the commercial development along side the existing road networks.

This draft also addresses the potential to remove the White River Boulevard and pull the levee into the site.



**Draft 3**  
**Figure 29**

Draft three builds on the upon the other two by continuing to develop commercial along 16th. It also begins to develop the idea of private interior space for residents on site.

More interior roads of various widths are added to provide for potential parking on street.



## Concept 2; Developed Concept

The developed concept combined many ideas from the previous drafts. However, one noticeably different part of this developed concept was that preservation of Bush Stadium was approached differently. Recalling the literature review, only the necessities should be preserved. Thus, only the southwest entrance (the grand entrance) extending to the second tunnel locations of Bush stadium was preserved. The detached portions of the stadium were reconstructed into fit a more functional use of mixed-use living. The reconstructed buildings would resemble in architecture and size what the original Bush Stadium did.

Commercial development was placed along 16<sup>th</sup> Street and North Harding, the main access roads. (However, future design will remove commercial development along side North Harding Street.) The commercial development on the west side of the site draws people in and remains in future design.



**Developed Concept  
Figure 30**

*After referring to the literature review, precedent studies, and previous drafts, the developed concept was formed.*

*Bush Stadium has been broken apart into more functional pieces that increase the amount of corridors. Also, an alley was formed to draw users from the White River Greenway directly into the site.*

*The next step was to add programming, develop more details, and design additional park space.*



The residential infill is expressed as large apartment type structures, which would evolve into townhouses for the final design. The conceptual plan lacked private green space for on-site residents, which was more developed for the final master plan.

Furthermore, this conceptual draft exposed the need for developing park space between the existing White River Greenway and the newly developed Greenway. The current use was underutilizing what the space could be used as. The Final Master Plan addressed using this space as a compliment to Bush Stadium, commercial development on site, and infill residents.

Another place of additional development was the location of the grocery store. The large building footprints of the east side of the site would be the best place to put a supermarket size store. Also, the biomedical complex located next to the railway will be kept and used as a catalyst for future development around the site.



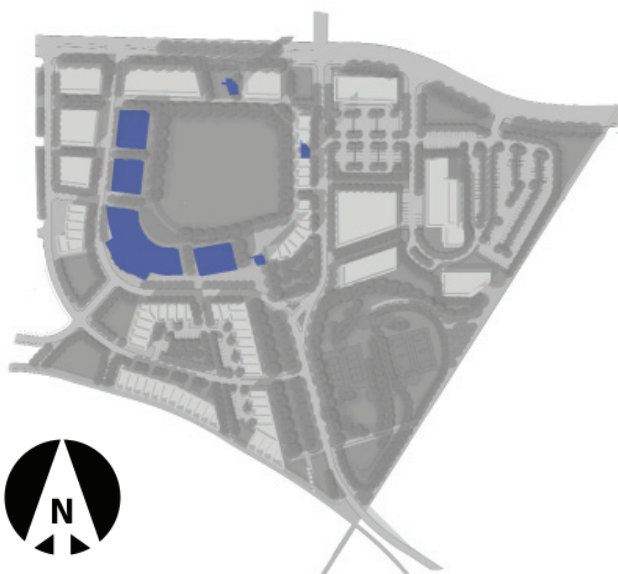
**Master Plan**  
**Figure 31**

The final mater plan shows five major components which include:

- Preservation of Bush Stadium
- Commercial development
- Infill
- Park and Open Space
- Circulation

## Master Plan

Site analysis determined that the pure scale of the stadium was too large for any type of successful site development. Parts of the stadium were falling down, including portions of the wooden roof overhang. A decision was made to reduce the size of the stadium to nearly half of what it was before. Only the most critical parts of the stadium would be kept and preserved. The southernmost entrance would remain through the initial concepts. The front entrance to the stadium arguably is the most distinct and worthwhile view of the stadium, as seen in the image. Within this entrance are the ticket booths, turnstiles, concessions, owner box, and beautiful detailing. This portion of the stadium up to the second series of tunnels would be persevered. The tunnels of the stadium are those that take users from the original concourse out to the grandstands. By preserving just the essential portions of the stadium, the seating capacity was changed from 12,000 seats to approximately 3,000. This smaller scale allowed for several programming activities to be more functionable with the new design. The other tunnel locations were used to be



**Site Preservation**  
**Figure 32**

*The portions of Bush Stadium that was preserved were the existing entrance to the stadium, the reconstructed parts of the stadium, and the three free-standing light towers. Other indirect forms of preservation are the view through to the stadium and the building facade that duplicated the outfield fence.*

guidelines for the rest of the building development on site. Using the previous tunnel locations was a way to respect the view into the playing field that the stadium once offered. The parts of the stadium that were removed would be redesigned to be friendlier to commercial and retail development. Though portions of the existing structure would be gone, the architecture of the new building would be made to look as similar to the stadium as possible. The reconstructed portions of Bush Stadium would be mixed-use. Commercial located on the first floor would be focused more on providing amenities for residents on the second and third floors of the building.

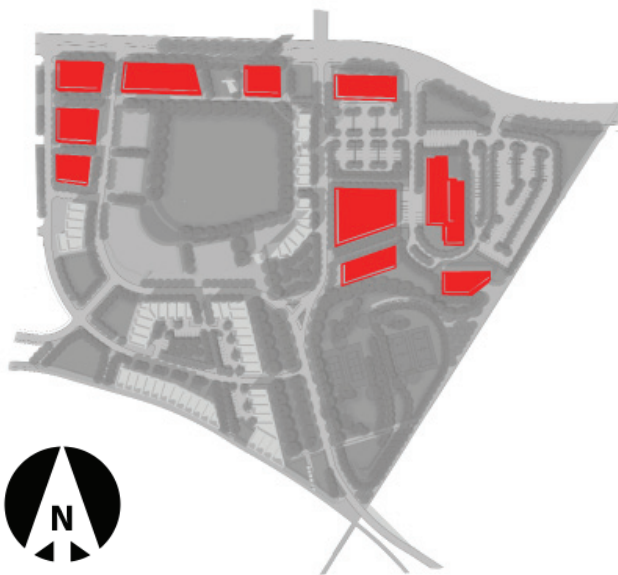
One of the more visual features on site is the three 100' foot tall light towers. They are visible from nearly one mile away. Simply saving these features to let them act as landmarks to the site was important. They also are kept to preserve the nostalgic and historic feeling the stadium delivered.

One of the other historic parts of the stadium is the outfield wall. It was designed off precedent from Wrigley Field, so preserving this piece was also important. Combining the building development along side 16<sup>th</sup> Street and North Harding Street, the buildings facades were positioned to be the new "outfield" wall for the stadium. This way, the space between the existing outfield wall and the street could be used as building development, but the space of the actual playing surfaced would be preserved. This comparison was made in Piazza Navona.

Because the building development defined the new outfield wall, it was able to preserve the playing surface. The playing surface was developed into open lawn for the concepts to preserve arguable the most critical feature of the site, the place where the game actually took place, the field. Preserving this part of the field was constant throughout every part of the design. The open lawn

allowed for a very unique public green space to be created that could serve for residents on site and the neighborhoods to the north and southwest of the site. Also, the open lawn is the only large portion of open space on site. This was done to promote the use of this space.

Other building development on site would respect Bush Stadium at all times. Bush Stadium is 40' tall, thus all other structure on site would be limited to approximately 25' height limit, or 1-2 stories. The buildings that "fill" the place of the existing concourse of Bush Stadium would offer nearly identical architecture, from the window lines to the pitched overhanging roof.



**Commercial Development**  
**Figure 33**

*Commercial development was placed to favor 16th Street. A grocery store was placed within the interior of the site to pull users into the design.*

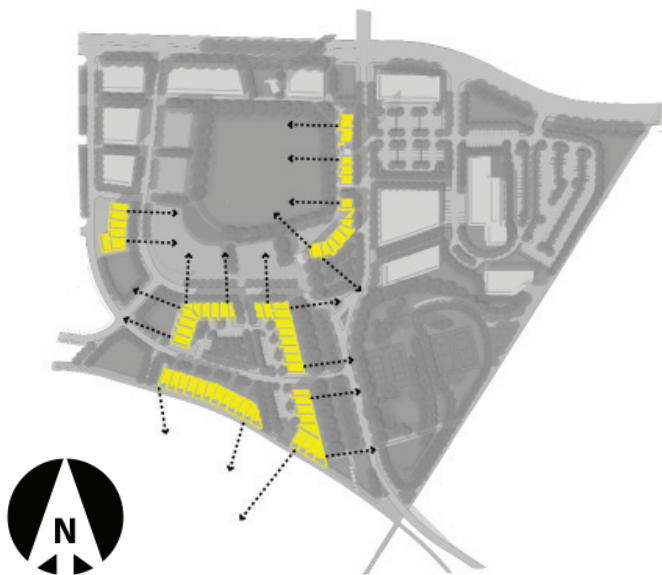
*A biomedical catalyst was saved to promote the future development of the medical facilities and institutions.*

To encourage people to enter the site from the greenway, the alley of trees was created to form a view of the open lawn and of the two light towers that fall into the direct angle of the alley. This space creates efficient circulation straight to the open lawn. Townhouses boarder it to the west and the White River Boulevard was rerouted to form the space to the east. Together, the townhouses, White River Boulevard, and the alley of trees form a very pleasant



townhouses, White River Boulevard, and the alley of trees form a very pleasant space to be or use to gain access to the open lawn.

The townhouses in the southern portion of the site continue to respect the tunnel guidelines pulled throughout the site. Depending on the individual townhouse, parking on half of the first story is available to reduce parking space on site. For example, the townhomes that boarder the White River Greenway has parking on the first level of structure. The second levels of these structures are at grade with the greenway. The view from every townhome was taken into consideration. For instance, some townhomes are oriented to look over the alley of trees, across White River Boulevard and into the developed park space. Others look out over the White River towards downtown Indianapolis. Some are situated adjacent to the open lawn so that they always have a view of the old playing surface.



**Infill**  
**Figure 34**

*Residential infill in form of townhouses brings new residents to the site. Basic essentials are provided for on site which reduces the need to travel off site. The infill appeals to IUPUI students because of the very close proximity to campus and to Indianapolis residents because of all the amenities the site provides.*

## **Park and Open Space**

**Figure 35**

*The parks space on site provides both private and public spaces. The private space is available for the residents on the site while the public greenspace is available for both visitors and residents. The open lawn and recreational areas of the two most important areas of greenspace on site.*



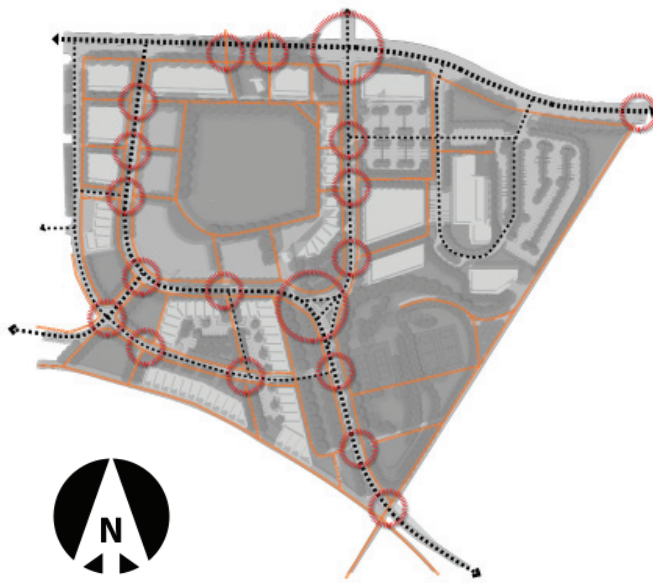
Promoting circulation to the site was very important. This process first begins by developing the existing railroad into a greenway. The railroad runs north into the residential neighborhood which would invite residents to access the site by using the new greenway. The new greenway, or the West Indy Greenway, would intersect with the White River Greenway and then continue south over the White River. The intersection of greenways and the road created a great chance for a very intriguing design.

This eastern area of the site was developed into a recreational park design. Tennis and basketball courts are proposed here for easy access off of the greenway. Together, tennis, basketball, open lawn space for various activities and the Kuntz Soccer Complex offers a rich mix of recreation for the area. South the of the tennis and basketball courts is a stormwater management collections system. Rainwater would be collected into the designed amphitheater. It would act as an interactive piece after rainstorms. Creating an interactive or touchable water feature here is useful because the White River is acting purely as an aesthetic feature. The amphitheater design was

made to model that of a baseball diamond with the various levels of seating. Each portion of the seating is 15' wide and offers lawn and limestone seating opportunities. It is uniquely designed so that it is functionable for the disabled. The terraces slope from grade to approximately 10', or the height of the greenway. This allows for disabled persons to access the site off the new greenway in a very unique and enjoyable way.

The greenway also slowly digresses into this area of the site just north of the tennis courts. The greenway expands to create a large plaza. This plaza would overlook the tennis and basketball courts and offer some views into the site. The plaza moves organically at a leisurely slope to meet grade in the park space. This area would be filled with a mixture of trees and shrub species.

Circulation within the site consists of pedestrian and vehicle paths. Vehicle paths are of course take the form of roads. The added interior road network is made up of different sizes. Main access roads are 30' wide consisting of two 11' feet travel lanes with 8' of on-street parking. The smaller access roads to the interior of the townhouse space and access roads behind the west side commercial developments are 20' wide with an 8' on-street parking area. The on-street parking area can also be used for service vehicles. North Hardin Street and the White River Boulevard have been rerouted to form a more efficient traffic triangle, where two yielding right turn lanes are present. 16<sup>th</sup> Street has been adapted let pedestrians cross more safely and a bike lane was added to promote the use of alternative transportation.



**Circulation**  
**Figure 36**

*The circulation on site consists of vehicular, pedestrian, and bicyclists. Connects through the site in pedestrian only avenues join the open lawn in the middle of the site. Vehicles move around this space. Bicyclists move through using the greenways and improved 16th Street.*

Pedestrian movement through the site is found on the greenways and through access ways in the interior of the site. The vistas that were preserved at the locations of the tunnels act as pedestrian movement ways through the site. The pedestrian movement ways run perpendicular to the streets to allow pedestrians to cross the street safely.

## Site Enlargements

There are two specific areas of the Bush Stadium site design which are enlarged to show more detail. The two enlargements best tell the story of the preservation, commercial development, infill, park space, and circulation. The two area for enlargement are:

- Adaptive reuse of Bush Stadium
- Park Development Space on east side of the site

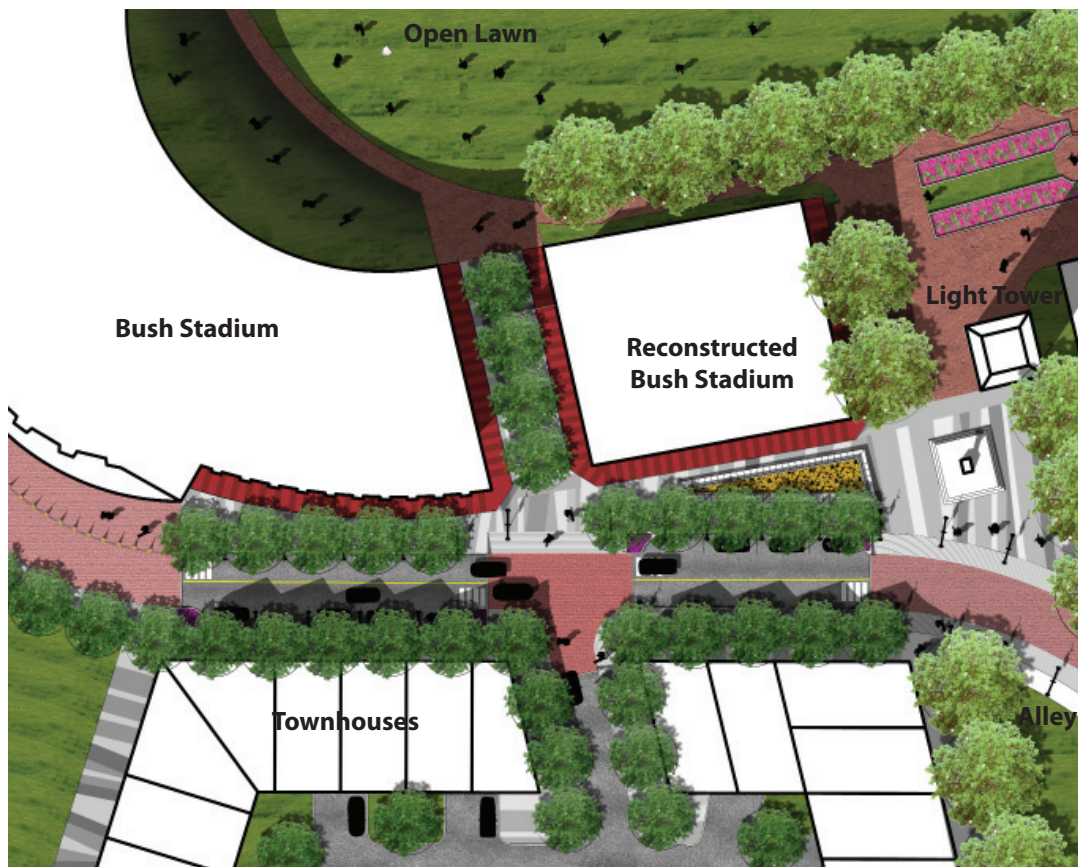
### Adaptive Reuse of Bush Stadium

The enlargement of the reuse of Bush Stadium shows several important details that contribute towards the overall site design. This area shows the townhouses, parking, and private park space behind the buildings. Also, the street condition is shown between the townhouses and Bush Stadium. The open lawn, Bush Stadium, and Bush Stadium reconstruction are also area of interests. Lastly, the alley of trees that boarder the townhomes and bring people into the site as well as the circulations movements of the street can also be seen. This is a major reason why this location was chosen. It shows many important details of the overall site design.

To begin, the adaptive reuse combines with the reconstruction of Bush Stadium was one of the most important parts of the overall site design. The plan shows how the Bush Stadium has been broken down, creating a corridor into the open lawn. The position of this corridor relates back to the historical analysis of the stadium. This location is that of the second tunnel entrance, which took people from the concourse to the seating. Just like the tunnel in



the previously standing Bush Stadium, this corridor or entrance provides view into the open lawn much like the previous tunnel would have at Bush Stadium. The microclimate of this space has been enhanced by the addition of linden trees between the reused and reconstructed portions of the stadium. The corridor continues to organize the townhomes too. The townhomes open up whenever a corridor or vista into the open lawn was preserved.

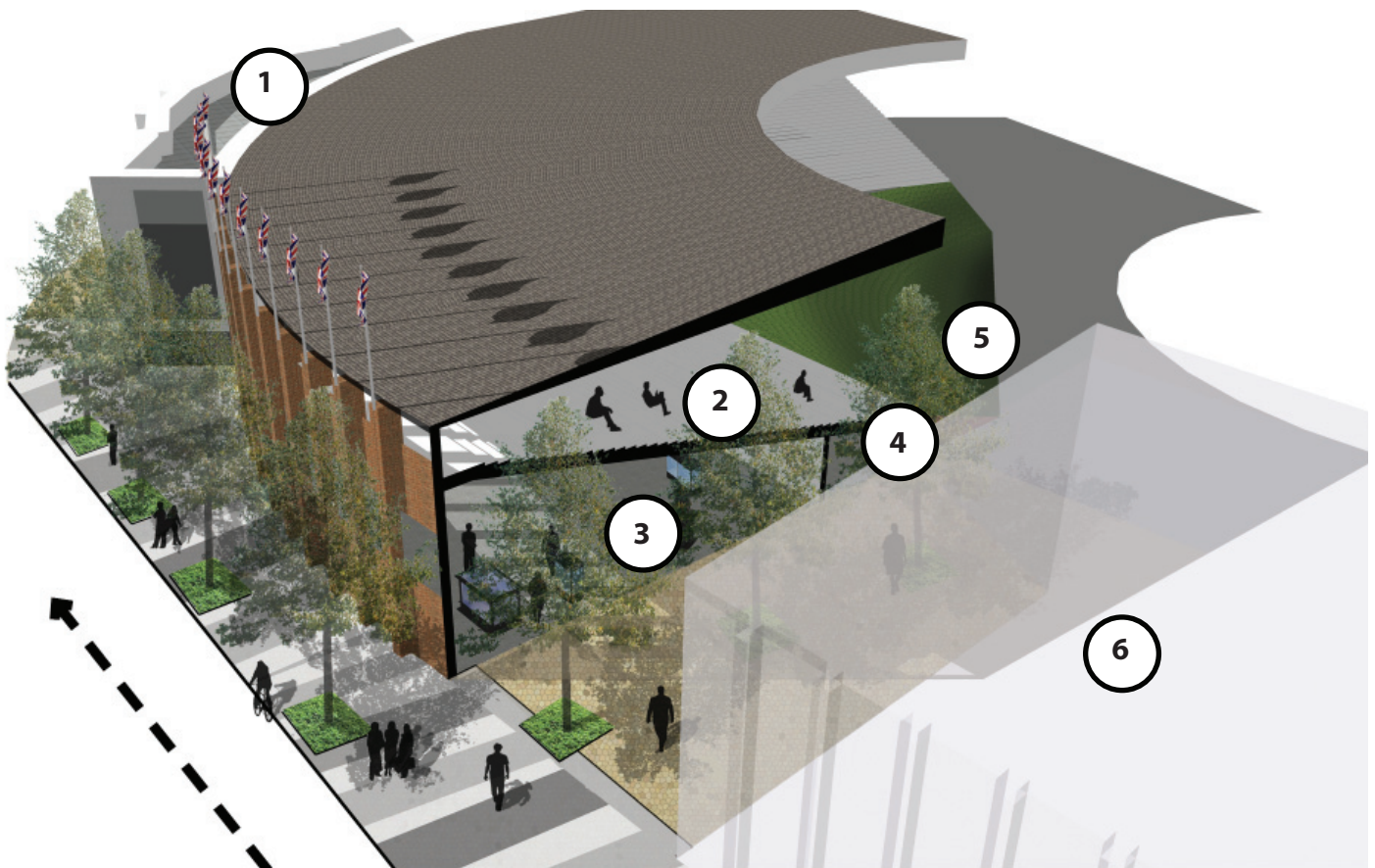


**Adaptive Reuse of Bush Stadium**  
**Figure 37**

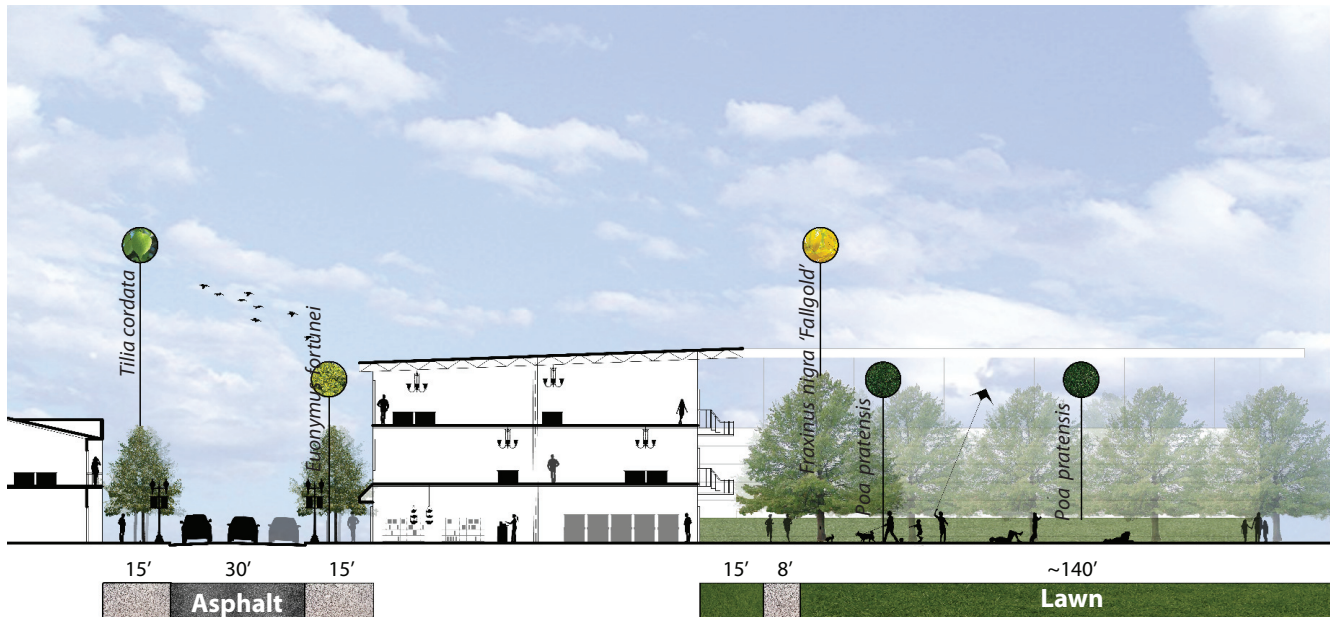
*The first detail plan shows how Bush Stadium has been adapted to become a public museum and how the other portion of Bush Stadium has been reconstructed. Townhouses boarder the south end of the street to create a variety of uses such as residential, commercial, and public land use. The importance of the Open Lawn is also seen through preserved vistas into the area.*



As the image below illustrates, the existing concourse of Bush Stadium would be turned into a museum space that would be dedicated to the rich Negro League history of Indianapolis. (In fact, the very first Negro League game was played in Indianapolis.) The museum space would fill the existing concourse with the main entrance still being the grand southwest entrance. The drawing also illustrates the use of the stadium seating and its interaction with the open lawn. The remaining seating would be approximately 3,000, which serves a more functional use for the design program. To access these seats, the open lawn slopes up to seating to provide unlimited access to the seats. Another functional use for the stadium is storage space beneath the seating. The storage space could be used by the museum or for attractions that would take place on the open lawn. The reconstructed portion of Bush Stadium



would resemble the architecture of the previous structure, but provide a more functional use for mixed-use development. The pitch would be duplicated in the rebuilt portion of the stadium and even small stadium-like seating balconies would be provided to residents on the second and third floors. These balconies would overlook the open lawn much like the previous seats overlooked the baseball game. The first floor of the reconstructed portion of Bush Stadium would commercial development that served the needs for residents on site. The use of these areas could be a convenience store or laundry mat. Access to the ground floor would be available from the open



<<< **Bush Stadium Adaptive Reuse**  
**Figure 38**

1. Existing southwest entrance
2. Preserved stadium seating
3. Museum
4. Storage
5. Sloped Lawn
6. Reconstruction of Bush Stadium

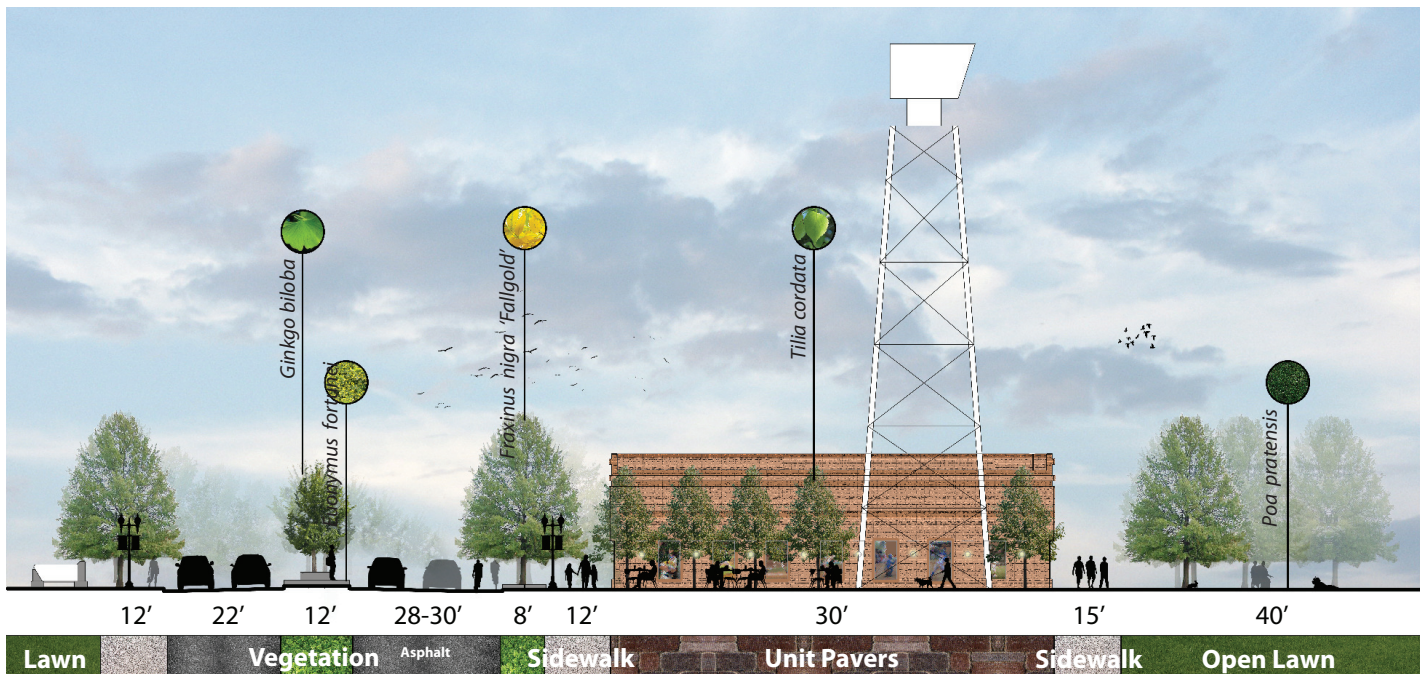
**Reconstruction of Bush Stadium**  
**Section A-A1**  
**Figure 39**

The reconstructed portions of Bush Stadium would resemble the architecture of the stadium. The pitched roof would remain as well as the height of the new structure. The new reconstruction of Bush Stadium will prove to be more functional for mix-used development.



laundry mat. Access to the ground floor would be available from the open lawn and the street, though the development that faced the open lawn would cater more toward the needs of the residents because of its visual lack from the street. The street would provide for on-street parking being eight feet wide with 11' travel lanes. The sidewalk would be 15' wide to allow for one to travel at a safe distance from the street while walking down the sidewalk.

The reconstructed portion of the stadium as well as the additional building development would be positioned in a way to contain the space of the playing field. For instance, building facades would define the space that the outfield wall once did. The image below shows how the building could be the new "outfield wall." Outside dining would be located between the building developments that would supplement commercial food establishments. The preserved light tower can also be seen and the extra vertical dimension it adds the site. The lower section also begins to illustrate how users from the open lawn could move across 16<sup>th</sup> Street to the Kuntz Soccer Complex.





**<<< Buildings Defining Space  
Section B-B1  
Figure 40**

*The building facades would define the open lawn space, exactly like the outfield wall defined the space of the playing surface.*

**Friday Night Movies  
Figure 41**

*The open lawn offers various elements. One important feature would be using the space as an outdoor movie theater, which would become an attraction in getting people to the site.*

Because the open lawn offers a variety of uses, the programming for this space is quite broad. One unique programming element for this open lawn would be a "Friday Night Movies," or simply an outdoor movie theater. This element to the program would act as a huge draw for residents of site and as an attraction to bring people to the site. Vendors would be available on these special occasions. Tables and chairs that are stored within the preserved portion of Bush Stadium would be brought into the lawn for seating. The stadium seats would also provide another 3,000 seats. The orientation of the open lawn is set up properly because that baseball field was designed properly, with the stadium facing north-northeast.



## Park Development

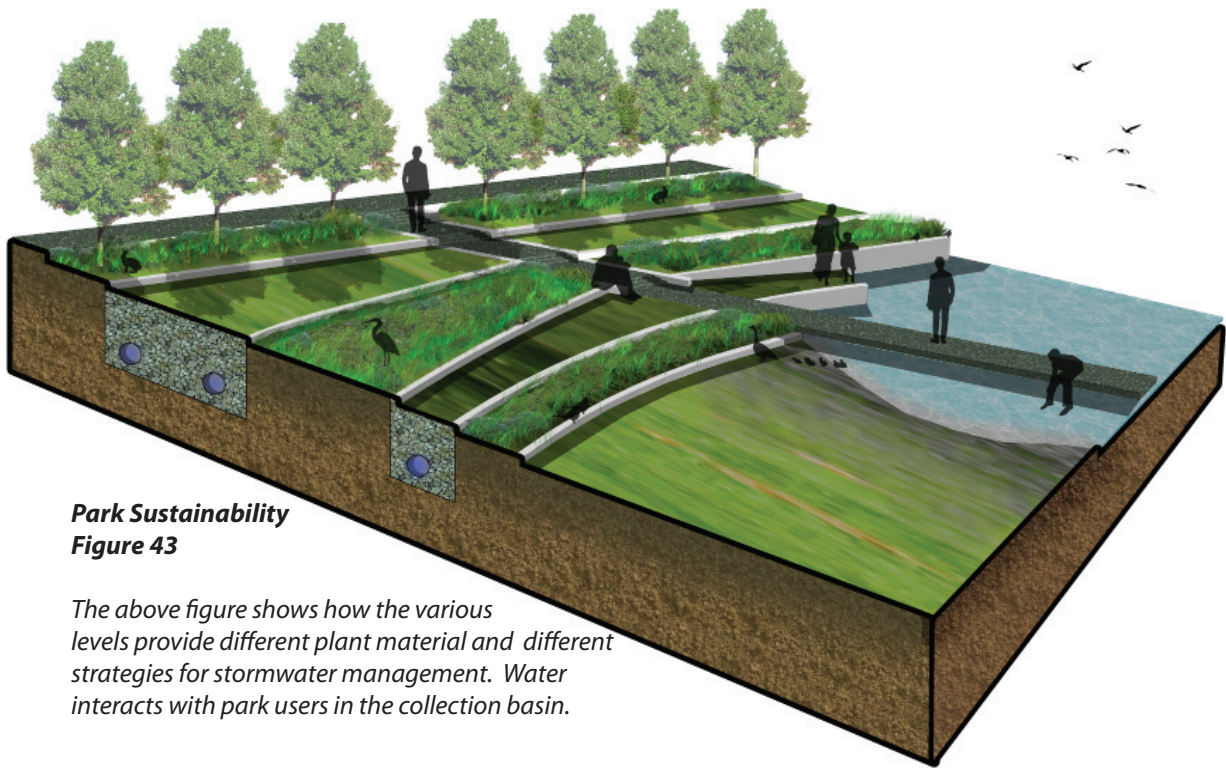
The park space is found in the southwest corner of the site. It is situated between the White River Greenway and the new Indy West Greenway, which used to be a railway. The intersection of these two greenways coupled with the open lawn space at Bush Stadium provided the great opportunity to provide a park in this area of the site. Recreational facilities such as tennis and basketball were placed here to draw people of the greenway and invite them to use the facility, but also as a convenience factor. Placing the courts here promoted the use of the greenway to get to the site. On-street parking has also been placed on the west side of the park too. To supplement the park development and the access from the greenways, a trailhead structure was placed next to the large parking lot of the northeast part of the site and near West Indy Greenway. The trailhead building is an open park structure that is two stories to connect to the elevated greenway. Because the greenway is ten feet above grade, unique elevations changes and terracing became possible. Terraces ranging in different widths step down from the greenway for form spaces for native plantings. Each terrace is 1.5' below the other, with the exception of the first terrace off the greenway. It is located 2.5' below the grade of the West Indy Greenway. To engage park users into the various levels and terraces, the recreational courts were placed on the terraces at different levels. For example, the basketball courts are six feet above grade then the tennis courts. The grade change created many different spaces for such a small site. Furthermore, the terraces also created many seating opportunities. Because the grade change from one level to another was 1.5', it is at a suitable

height. Thus, each level of the park allows people to sit and watch others playing basketball or tennis. However, to promote accessibility to the park area, a sloping path was designed into the greenway. It organically moves from the greenway and flows around the basketball courts until it meets grade near the tennis courts. This meant disabled persons could easily move from the greenway to the park very efficiently and safely.

Another important feature of the new park was providing organic paths with various microclimates. The vegetation elsewhere on site on was limited to street trees or trees that were placed formally. The park needed to offer a more organic form to promote relaxation and freedom. This was accomplished by using various tree, shrubs, and groundcovers throughout the park to create interesting shade, smells, and relaxing spaces. This area can best be seen in the area just north of the tennis courts.



Sustainability was also taken into consideration in the park. Because the White River is located south of the park, water will drain towards this park space in effort to reach the White River. With plenty of stormwater moving to the site, there is a potential to effectively filter water before it reaches the White River. Managing stormwater became an integral part of the design of this park. The terraces incorporate this idea by offering different strategies of stormwater collection and filtration. As seen in the image, the terraces alternate in plant material. The highest terrace has various plant materials such as native trees, shrubs, groundcover, and wildflower plantings. However, the next lowest terrace is composed of lawn. Water is cleansed in both of the terraces as it moves through the plant material and subsurface materials. However, the grass lawn sits atop a combination of porous pavement and gravel. Water falling in this area will filter water much more quickly than in the highly vegetated terraces. The water that moves through the lawn terraces is collected in an eight inch perforated pipe (two pipes in necessary locations) that moves the water to the water collection basin, which is the lowest grade on site. Water would also be sheet flowing from the recreational courts and other hardscapes and vegetation into the collection basin. The collection basin is made up of a highly compacted soil to encourage ponding. The ponding will promote an interaction between people using the bridge and the park space. Thus, park users will be able to see the direct results of water filtration and collection. Also, with a range of plant species in the park, it promotes a wealth of wildlife in the area. The likelihood of interaction between wildlife and people increases.

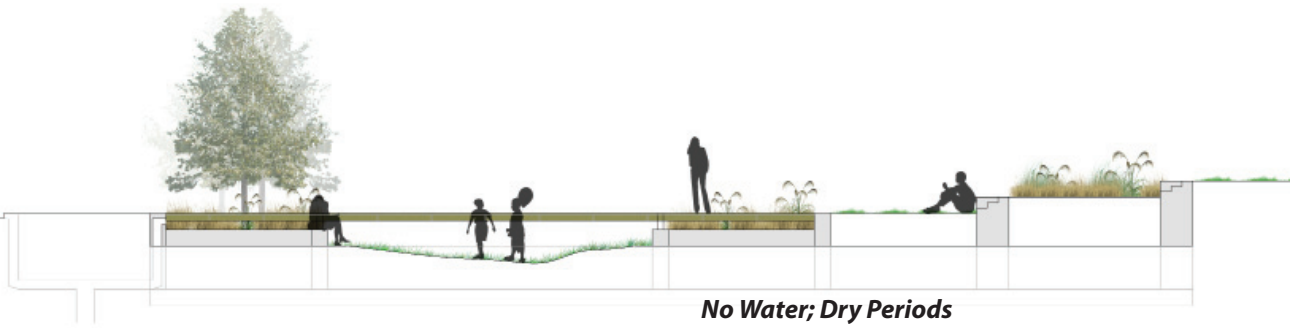


**Park Sustainability**  
**Figure 43**

*The above figure shows how the various levels provide different plant material and different strategies for stormwater management. Water interacts with park users in the collection basin.*

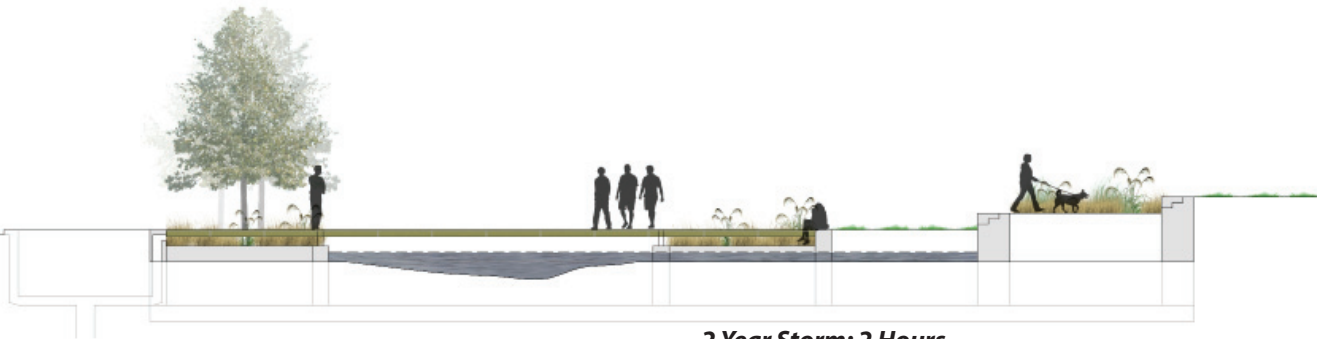
What makes this water collection important is that it is tangible. The White River is an important water system, but it acts as a purely aesthetic form. This water collection in the park space provides interaction much like the White River Canal does in downtown Indianapolis. Like the White River Canal, the collection area is very accessible to interact with and see. The White River Boulevard, White River Greenway, and new West Indy Greenway all intersect south of this area. This allows bikers and motorists to easily see the site. With ADA accessible sidewalks, all users are also able to physically access the area. The water level changes depending on the intensity and time frame of the storm. The maximum storm the site can hold is a five-year-storm. Storms that provide more water than the five-year-storm will overflow into the street stormwater collection.





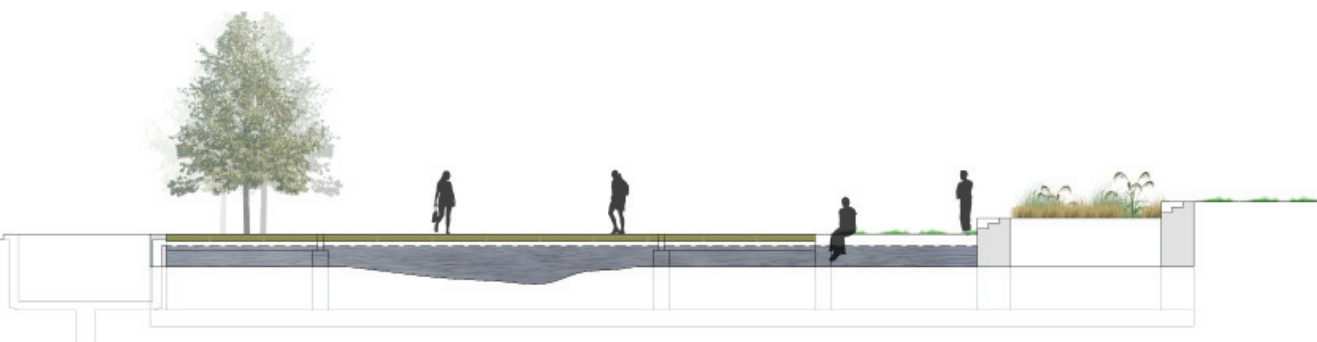
**No Water; Dry Periods**  
**Figure 44**

*At periods of no or little rain, the water basin becomes a small usable space.*



**2 Year Storm; 2 Hours**  
**Figure 45**

*During the two year storm, the water level is approximately 28". Users of the park are able to interact with the water, by simply sitting on the edge or seeing how the rainwater has been filtered through vegetation.*





The series of images on the left progressively show the various forms the water collection basin takes depending on the amount of rainwater that falls. The water level in the basin determines how the space can be used. For instance, at times with no water or dry periods the basin can serve as a small open space. The lowest point of the basin is 28" below the level of the first terrace. The second level terrace is 46" above the lowest point of the basin. The bridge is also 46" above the lowest point of the basin.

An intermediate storm (though still one of intense rain fall) is shown as the two year, two hour storm. Approximately six full swimming pools of water can be contained in this area before the water begin to overflow with the street inlet, or approximately 120,000 gallons. The water collections basin is much more broad than it is deep, which allows it to hold large amounts of water without being overly deep.

As water approaches the five year, two hour storm, the water level in the basin is reached. If water levels were to reach this intensity, plantings may be overcome with a shallow film of water, usually less than two inches. Furthermore, these illustrations give a better idea of how the terraces are sitable, which makes the entire area act as amphitheater-type seating, which indirectly respects the concept of Bush Stadium.

**<<< 5 Year Storm; 2 Hours**  
**Figure 46**

*The water basin can hold nearly six standard swimming pools of water, or approximately 120,000 gallons of water. This amount of water at the park is equal to the five year, two hour storm.*

The park space developed on the site is connected by the existing White River Greenway and the new Indy West Greenway. As seen in the before and after images on the right, the railroad would be transformed into a new greenway. The advantages of doing this are providing an inland trail that pulls into the residential areas to the north and southwest. The existing White River Greenway does not move through the residential neighborhoods. With the addition of the Indy West Greenway, a more efficient north-south trail will more efficiently move people to the site. Also, because the Indy West Greenway is fixed atop an old railroad, the trail is a much more straight and direct form of access. The White River Greenway follows the White River thus is very organic. The combined use of the greenways will provide a relaxed organic form of travel as well as a more direct form of travel.

The abandoned railroad was chosen to be a greenway rather than a transit oriented design stop (T.O.D.) because the railroad ends just three miles north of the site. Also, the residents at Fall Creek and parts of Speedways are already within a bike ride from downtown. The stop would facilitate people living outside of Indianapolis more than people living in the city. A greenway however would allow residents in the neighborhoods that surround downtown Indianapolis an additional route to the city, one which would be more direct. The Indy West Greenway would be more of an amenity for the surrounding residents than what a T.O.D would be.



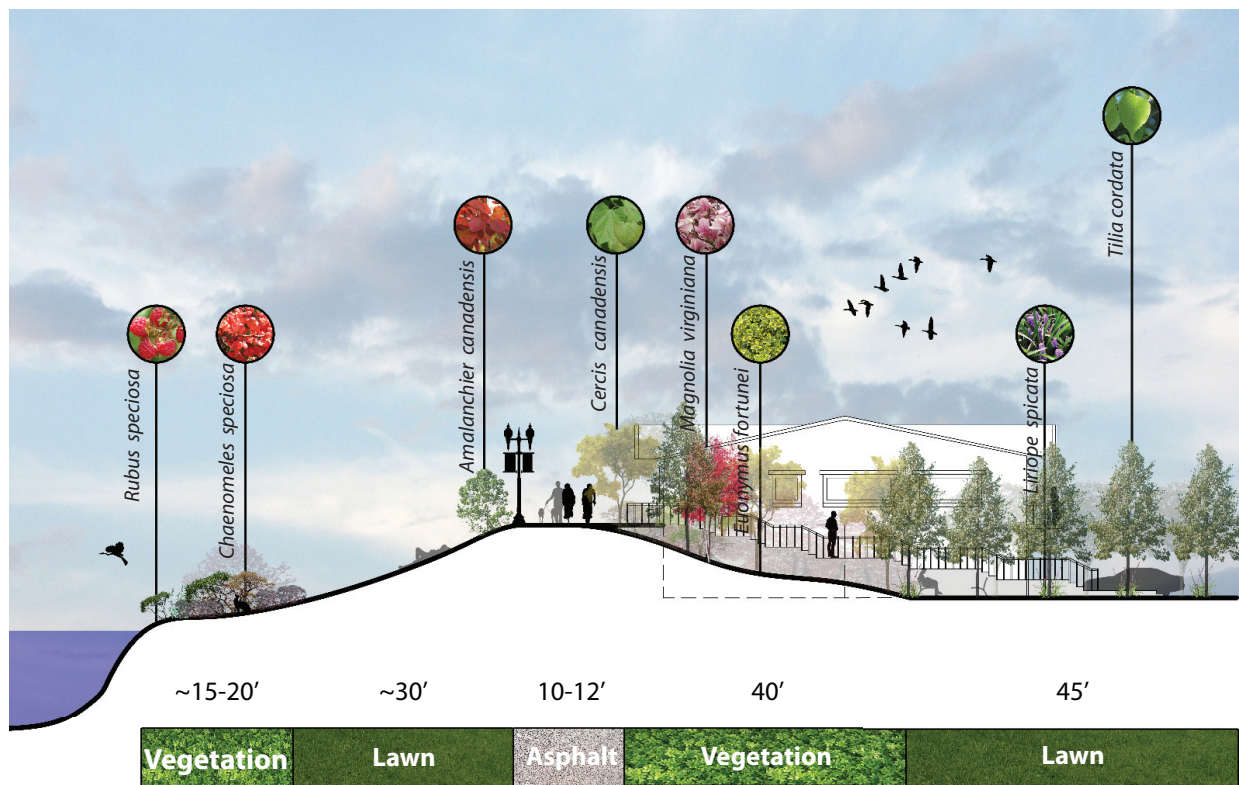
**Existing Railway**  
**Figure 47**

*The above figure looks down the railway looking north-northeast. The railroad is nearly abandoned according to Eskew Enterprises, a business that is located just east of the greenway. The railroad will be converted into the new "Indy West Greenway."*



**West Indy Greenway**  
**Figure 48**

*The new "Indy West Greenway" uses the entire width of the existing right-of-way to create the new greenway. Banners and additional vegetation make the space unique.*



**Living by the White River Greenway**  
**Section C-C1**  
**Figure 49**

*The above section cuts through the White River Greenway. Townhouses boarder the levee that would provide views over the White River toward downtown Indianapolis.*

**Entrance Alley to the Site >>>**  
**Section D-D1**  
**Figure 50**

*The alley of trees was designed to pull people off the White River Greenway into the site. The alley leads directly to the open lawn which is in a direct axis with two of the three preserved light towers.*

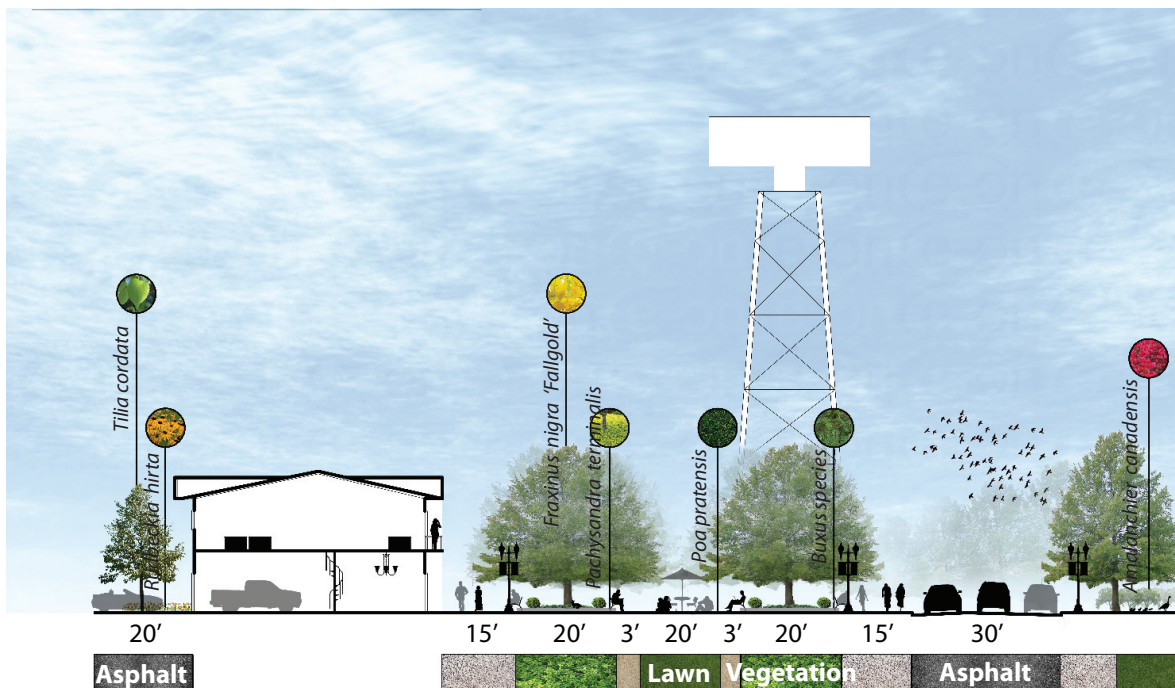
The White River Greenway has also been adapted to serve the needs for residents on site. Townhomes have been designed to be placed directly on the edge of the levee, which provides views over the White River towards downtown Indianapolis. The townhomes on the levee place more emphasis on using the White River Greenway. The section above illustrates the expanded use of the greenway as well as additional private park space development between structures. Private park space is an important part in providing a high quality of life for infill development. The private park space



would be developed on both the north and south facing slopes of the levee. The spaces would provide different microclimates because of the orientation to the sun.

The large stairways bring users from the greenway down to the site. The stairways range in length from 90' to 100'. The stairs are quite long to provide views from various elevations as one enters the site. They also funnel traffic into the particular locations, rather than having an undefined entrance and exit to the site.

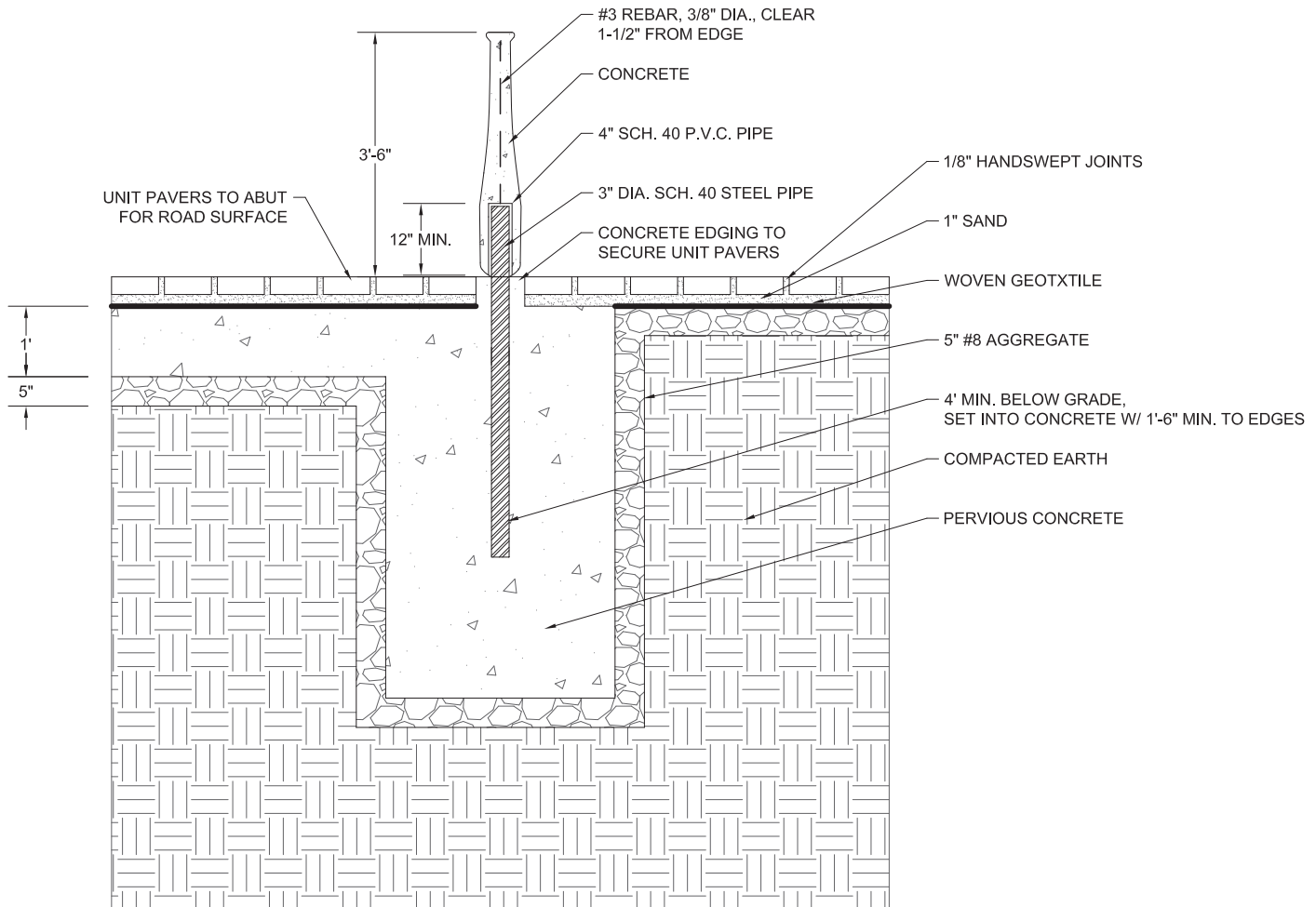
One entrance in particular that is celebrated on site is the entrance at the southeast portion off the White River Greenway. The entrance is aligned with the light towers and view into the open field. An alley of trees forms the view on both side of the entrance space. The White River Boulevard runs adjacent to the west side of the alley. This allows both vehicles and pedestrians to experience the same entrance and views of the site. The alley was important because it provided direct and straight-forward access from the White River Greenway. This promotes users to be pulled into the site.



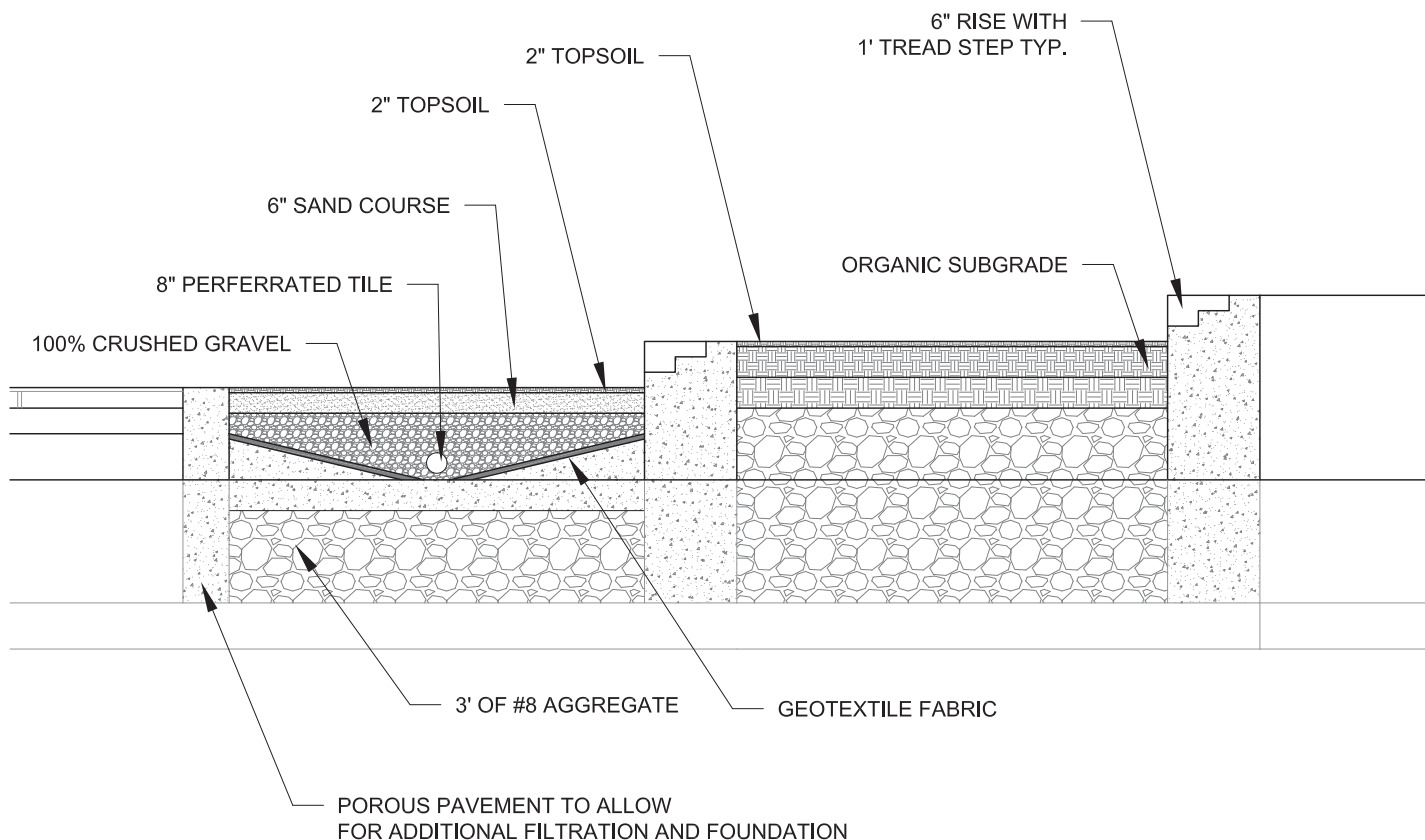


## Construction Documentation

The following details show the site detail development on site. Located in front of the southwest entrance to Bush Stadium, bollards line the entry and protect pedestrians from the vehicle. The sidewalk and the street are at grade thus bollards were needed. Unit paves sit atop porous pavement on the street condition for increased stability, while on the sidewalk unit pavers sit atop #5 aggregate on top of compacted sub-grade. The bollards themselves would have historic baseball names and dates located on each bat.



The figure below represents the details of the terracing in the park space. In the lawn terracing, porous pavement was placed underneath the surface of the lawn to promote stability but still allow water to percolate through. Crushed gravel was placed on top of the porous concrete to support the lawn. 8" perforated pipe is located within the gravel to carry the stormwater to the collection basin. However, the terraces that support native plant growth have various layers of organic sub-grade that sits on top of #8 aggregate. The two different types of terraces function differently. One is designed to collect stormwater while the other encourages plant life to absorb and use the water.



<<< **Bollard Detail**  
**Figure 51**

*Baseball bat bollards are found at the southwest entrance to Bush Stadium. They are found where the street and sidewalk are at grade.*

**Terraces Detail**  
**Figure 52**

*Different terraces have different structural components to allow for various forms of water filtration.*

## Planting Plan

The plants that make up the park space are very important. A variety of shade trees and ornamental trees were used to add shade, color, smell, and other various textures that engage the senses. Wildflowers include Black Eyed Susan's, Purple Coneflower, and Aster. The larger shrub planting should include Viburnums, chokeberry, holly, and Burning Bush. The ornamental trees in the park space are Crabapples, Redbuds, and Serviceberrys. Firegold Ashs are used throughout the rest of the park space that are the same as the other trees on site.

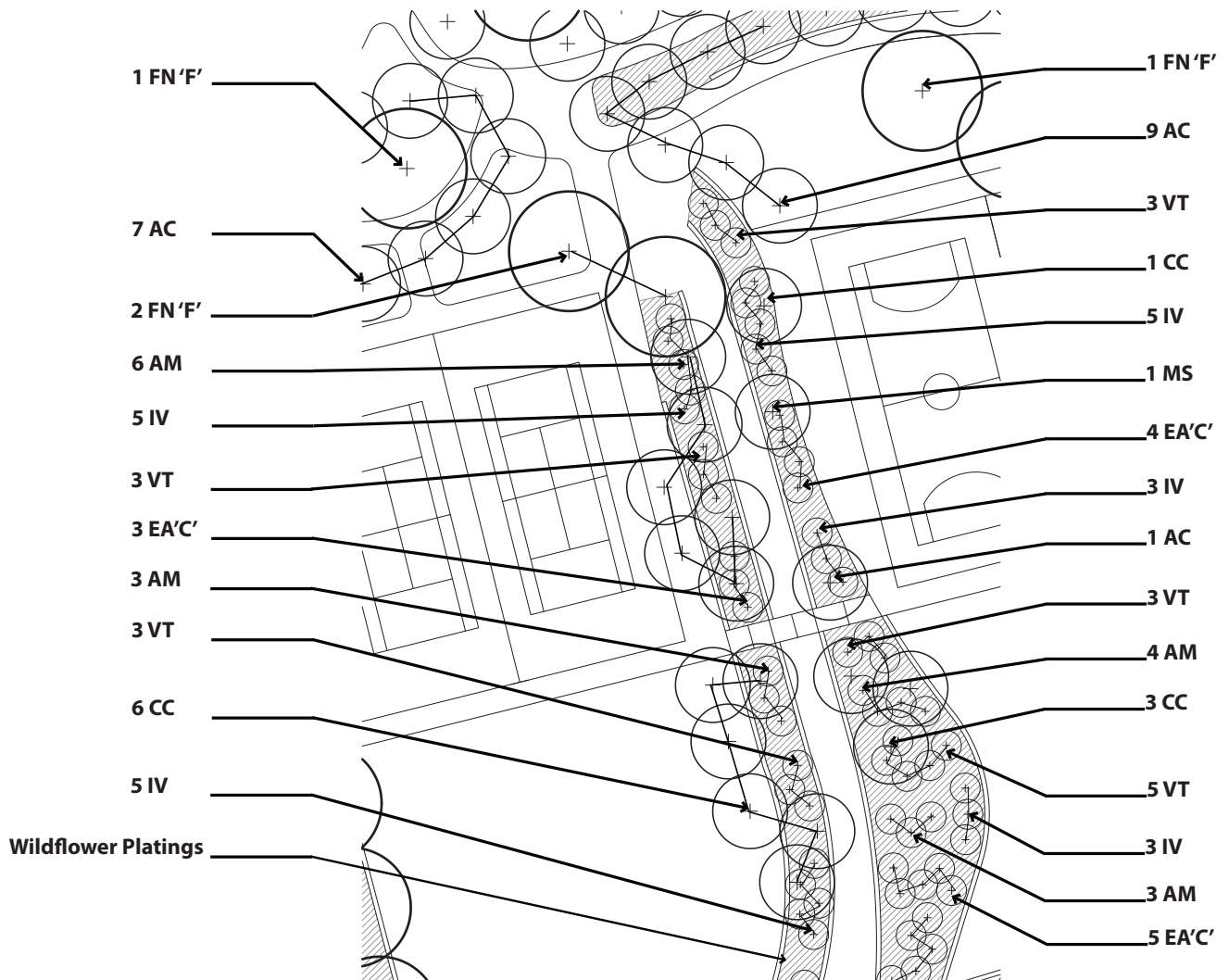
### **Wildflower Plantings Figure 53**

*Black Eyes Susans, Aster, and Purple Coneflower were all wildflowers that were used in the park design. The wildflowers are found in the heavily vegetated plantings.*

### **Planting Plan in Park Space >>> Figure 54**

*The planting plan on the right shows the array of plant specifies found throughout the park space.*





Common Name	Scientific Name	Symbol	Amount
Firegold Ash	<i>Fraxinus nigra</i> 'Firegold'	FN'F'	4
Serviceberry	<i>Amalanchier canadensis</i>	AC	17
Redbud	<i>Cercis canadensis</i>	CC	10
Crabapple	<i>Malus</i> species	MS	1
Chokeberry	<i>Aronia melonocarpa</i>	AM	16
American Viburnum	<i>Viburnum trilobum</i>	VT	17
Holly	<i>Ilex verticillata</i>	IV	21
Burning Bush	<i>Euonymus alatus</i> 'compactus'	EA'C'	12



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## Conclusion

In conclusion, Bush Stadium was preserved to save a part of baseball history and to turn the stadium into a community amenity. The site was developed to address:

- Preservation
- Commercial Development
- Infill
- Park and Open Space
- Circulation

The five areas combine to create a project site that is very unique. People are able to live, work, and relax all on the 50 acre project site. Saving it is important for baseball history as well as keeping an important landmark for Indianapolis and the entire country.

If current trends continue, Bush Stadium will be destroyed by neglect. This project addresses the real potential to not just save Bush Stadium, but save it in a way that would improve the lives of the people of Indianapolis.

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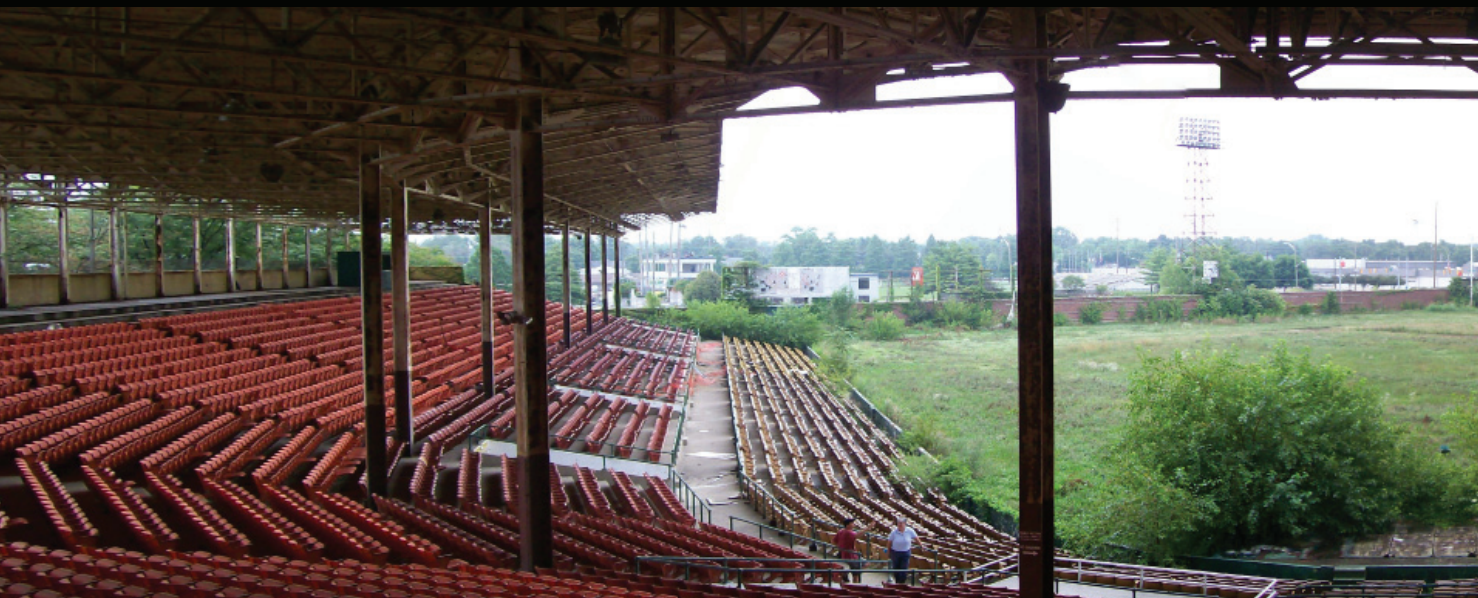
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## **Society for American Baseball Research**

In February of 2010, the American Society of Baseball Research held a meeting at Conner Prairie. To improve the quality of this project, the idea was presented to the members to gather a stronger understanding of what others thought preservation was or was not in regards to Bush Stadium. Many supported or at least understood the thought process of removing a majority of the seats. This understanding provided the project with a fair foundation to continue moving on with site development.

## Definition of Terms

### Brownfield

A site or location that has been previously used or developed at a previous time.

### Redevelopment

A process of taking an existing site or structure and creating a new use for the site or location.

### Reuse

A process of taking an existing site or structure and duplicating its original use.

### Urban Parkland

Green space that is located in a dense development, such as a city.

### Adaptive Reuse

The combination of reuse and redevelopment of an existing site or structure.

### Recreation

Passive and active interaction of people through the use of various activities.

### Activities

Both organized and unorganized program of use for a particular space.

### Circulation

The movement of pedestrians, vehicles, and bike use through a site.

Open Lawn

The persevered space in which the playing surface for the baseball diamond once was.

Catalyst

An idea (structure) that prompts future successful growth on an area.

## Site Photographs

The following site photographs were taken by the author in August of 2009 and January and February of 2010. In August of 2009, Bush Stadium was accessible because the stadium was not under lease with any agency. Tina Jones of Indy Parks and Chris Baas, an assistant professor at Ball State University were able to clear access for the author for a site visit. However, in January and February of 2010, Bush Stadium was under lease and functioning as a junkyard. This prevented any access to the interior of the stadium. The outside of the stadium and surrounding grounds continues to act as a city park and is open to the public.



**Southwest entrance to Bush Stadium**  
**Figure 55**

*The grand southwest entrance to Bush Stadium was completely preserved in the final design.  
Photo taken in January of 2010 by author.*





***Free-Standing Light Towers***  
***Figure 56***

*Three 100' tall light towers stand around the outfield. Each was preserved in the final design.  
Photo taken in January of 2010 by author.*



***View atop White River Greenway looking east***  
**Figure 57**

*The White River Greenway runs atop the levee that retains the White River. Looking east, the trail moves through IUPUI and then reaches downtown Indianapolis. Photo taken in January of 2010 by author.*





***View from Left Field at Bush Stadium***  
***Figure 58***

*Photo was taken by author in August of 2009, before the field was leased out as a junk yard.*



***View from 3rd Base Line***  
***Figure 59***

*This photo was taken by the author in August of 2009. The view is approximately from the existing dugouts looking towards home plate.*





***Interior Offices at Bush Stadium***  
**Figure 60**

*Many of the interior office above the grand southwest entrance to Bush Stadium offer rich detail. This photo was taken by the author in August of 2009.*





***West Facade of Bush Stadium***  
***Figure 61***

*This photo was taken by the author in August of 2009. The view is looking down the facade of the west side of Bush Stadium. Honeylocust create the tunneling effect.*



***Playing Surface***  
***Figure 62***

*This photo was taken by the author in August of 2009. The playing surface here is shown as completely abandoned. Now, unusable cars fill the entire infield.*





**Concourse of Bush Stadium**  
**Figure 63**

*This photo was taken by the author in August of 2009. The view is looking east (down the 1st base side) down the concourse. This space would be adapted to serve as a Negro League Museum where the structure of Bush Stadium was preserved.*



***Outfile Wall and Scoreboard***  
***Figure 64***

*This photo was taken by the author in August of 2009. This image is of right field taken from the 1st base side of the field.*



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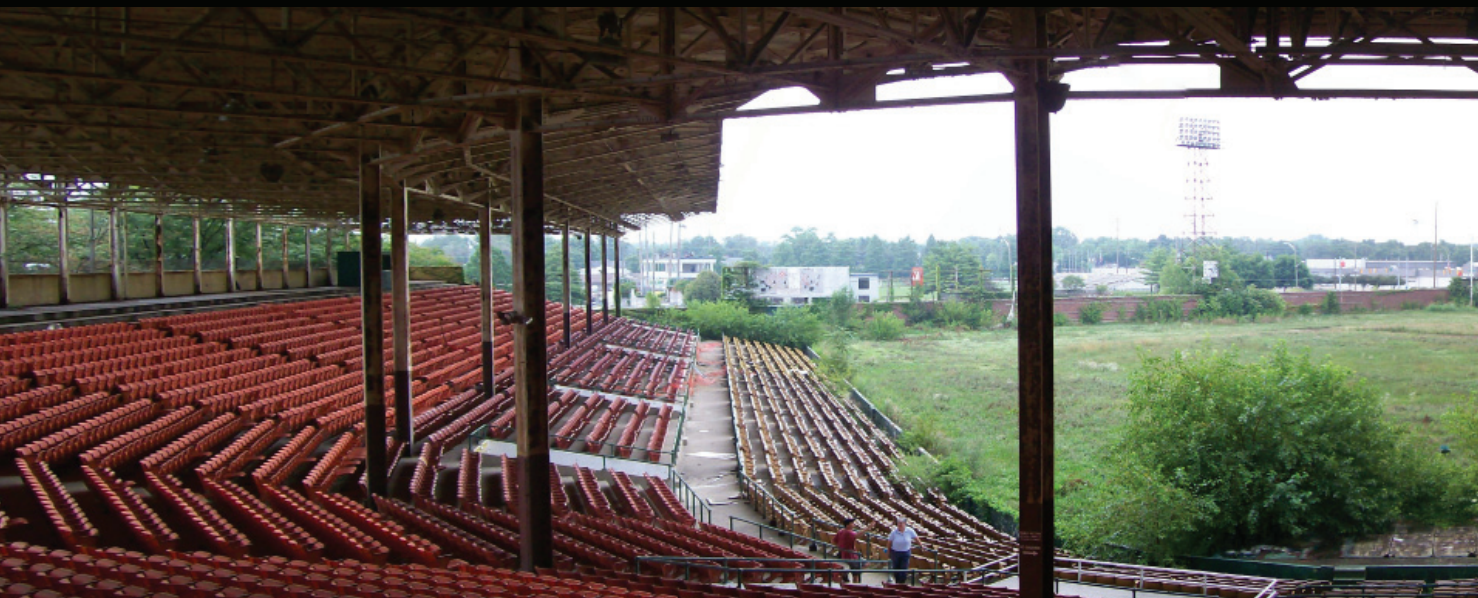
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